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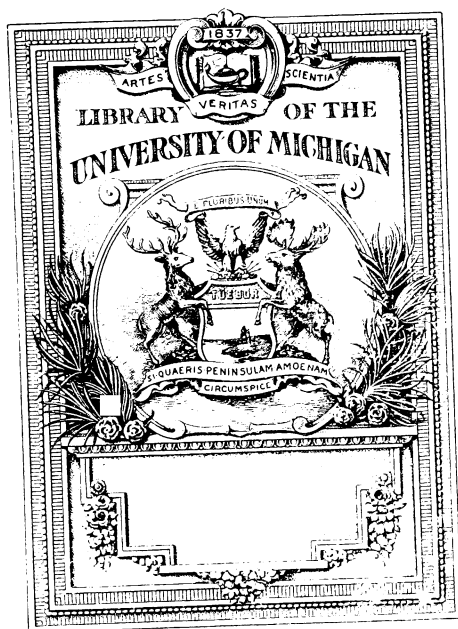
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JOSIAH HORNBLOWER,
AND THE
FIRST STEAM-ENGINE IN AMERICA.

WITH SOME NOTICES OF THE
SCHUYLER COPPER MINES AT SECOND RIVER, N. J.,

AND A
GENEALOGY OF THE HORNBLOWER FAMILY.

BY WILLIAM NELSON,
RECORDING SECRETARY OF THE NEW JERSEY HISTORICAL SOCIETY.

Read before the Society, at Newark, May 17, 1883.

NEWARK, N. J.:
DAILY ADVERTISER PRINTING HOUSE.
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JOSIAH HORNBLOWER,

AND THE FIRST STEAM-ENGINE IN AMERICA.

“Somewhat back from the village street,” in the burying-ground beside the venerable Reformed Church at Belleville, New Jersey, stands a large brownstone slab, thus inscribed:

IN
M E M O R Y
O F

JOSIAH HORNBLOWER, ESQR

who departed this Life

ON THE 21ST OF JANY AD 1809

Aged 79 Years 10 Months

and 29 Days.

Josiah Hornblower was born in Staffordshire, England, February 23, 1729, N. S. His father, Joseph Hornblower, was even at this early day engaged in superintending the construction of steam-engines, which were just coming into general use in the coal mines of that part of England—now known as the “Black Country”—and in the deep tin and copper mines of Cornwall, for pumping the water from the dismal depths to which the shafts had penetrated. These engines, then known as “fire-engines,” were designed by Thomas Newcomen, and embodied the most practical application of the power of steam that had yet been seen, being indeed the first to cope successfully with the problem of how to clear the deep mines from water. It is said that a patent

was granted in 1705* to Newcomen, in connection with John Calley, his partner, and Thomas Savery, who had received a patent himself in 1698 for a steam pumping-engine, and some of whose ideas were incorporated in the new machine. It was not until 1712 that Newcomen and his associates got one of their engines into successful operation at a mine near Wolverhampton. It gave such excellent satisfaction that others were built forthwith, and during the next year the engines were introduced into Cornwall.† Their practicability having been demonstrated, especially as obvious improvements were speedily added, within a very few years they came into general use throughout the "Black Country" and in Cornwall, particularly in the latter region, where the mines had been sunk so deep that they could no longer be worked to advantage by hand and horse power. It is believed that Newcomen made the acquaintance of Joseph Hornblower at the time he was building his first successful engine, in 1712. He engaged Mr. Hornblower to superintend the erection of other engines subsequently, and brought him from Staffordshire about the year 1725 to supervise the erection of the second engine in Cornwall—at the Wheal Rose mine, a few miles north of Redruth. He soon after erected another engine at Wheal Busy, or Chacewater, and a third at Polgooth, also in Cornwall.‡ The engines were called after the inventor, or from the country where they were best known, as the "Newcomen" or "Cornish" engines.

Not only was the elder Hornblower an engineer,§ but several

* "This is a mistake, as no patent was ever taken out by Newcomen."—*Lives of Boulton and Watt*, by Samuel Smiles, London, 1865, 63.

† Desagulier's *Experimental Philosophy*, 1744, quoted in *A History of the Growth of the Steam Engine*, by Prof. Robert H. Thurston, New York, 1878, pp. 33-38; *Ure's Dictionary of Arts, etc.*, New York, 1853, I, 490. Smiles says the first engine in Cornwall was erected in 1720.—*Lives of Boulton and Watt*, 69.

‡ *Yesterday and To-day*, by Cyrus Redding, London, 1863.

§ That the occupation of the first of the family was far from being so prosaic is obvious from the signification of the name. "The *berner* was a special houndsman who stood with fresh relays of dogs, ready to unleash them if the chase grew heated and long. In the *Parliamentary Rolls* he is termed a 'yeoman-berner.' Our 'Hornblows,' curtailed from 'Hornblower,' and simpler 'Blowers,' would seem to be

of his sons were likewise, and for three-quarters of a century or more the family was prominent in engine construction.* Jonathan Hornblower, the oldest son of Joseph, was particularly eminent as an engineer, and in 1745 settled in Cornwall† to superintend the erection of "fire-engines," taking with him his younger brother Josiah, then but a lad. Several of the sons of Jonathan followed the same business for many years, among them Jabez Carter and Jonathan, Jr. The former was employed to superintend the erection of pumping engines in Holland and Sweden, and was a distinguished inventor in other departments of science and the arts.‡ Jonathan Hornblower, Jr., was one of the rarest inventors of England. He it was who (in 1776) invented the compound or double-cylinder engine, so essential for the swift and successful navigation of the ocean to-day, by which the steam is economized and utilized to an enormously greater

closely related to the last, for the horn figured as no mean addition by its jubilant sounds to the excitement of the chase. He who used it held an office that required all the attention he could bring to bear upon it. The dogs were not unleashed until he had sounded the blast, and if at any time from his elevated station he caught sight of the quarry, he was by the manner of winding his instrument to certify to the huntsman the peculiar class to which it belonged. In the Hundred Rolls we find him inscribed as 'Blowhorn,' a mere reversal of syllables."—*English Surnames*, by George Wareing Bardsley, London, 1873, p. 233. See also Lower's *Essay on English Surnames*, London, 1819, I, 105; Arthur's *Etymological Dictionary of Family and Christian Names*, New York, 1837, p. 163. There is a somewhat vague family tradition that an ancestor named Green was a bugler in the service of Charles II (?), and that his dulcet strains so captivated the ear of the "Merry Monarch" that he one day exclaimed, "thou shalt be my horn-blower." Whence the name. The family were also locally and colloquially known as the "Horners."—See *Lives of Boulton and Watt*, 293, 302.

* In the early days of engine building, there was as much difference between an engineer and a manufacturer of engines, as there is to-day between an architect and a house-builder. The Hornblowers were engineers; they examined into the amount of work required to be done by the engine, estimated the necessary capacity and dimensions of the several parts, made all the drawings and superintended its erection, until it was completed and satisfactorily in operation. Boulton & Watt were perhaps the first to combine the two branches, of designing and constructing, in their works at Soho, near Birmingham.

† The imposition of a heavy duty on coal transported coastwise retarded for many years the extension of the use of steam-engines in Cornwall, which had to import its coal from Wales by water. The removal of this duty in whole or in part gave an immense impetus to the use of steam-engines in the Cornish mines, and this led to the removal thither of Jonathan Hornblower.

‡ Family records, communicated to the writer by the Hon. Joseph P. Bradley, Justice of the Supreme Court of the United States.

extent than would be possible without it. At the same time he invented several other valuable improvements in the steam-engine, including an important modification of the walking-beam, and tight-fitting collars about the cylinders and pistons, to prevent waste of steam.* He did not apply for a patent on these inventions until 1781, and meantime James Watt had (in 1769) taken out a patent for his separate condenser, which is the greatest improvement, perhaps, the steam-engine has undergone from the time (about 1628) the Marquis of Worcester conceived the idea of "an admirable and most forcible way, to drive water by fire,"† to the present day. Watt's patent of 1769 evidently included the mere germs of inventions not yet fully perfected by him,‡ but his vague specifications were capable of a comprehensive application, which his shrewd and wealthy partner, Matthew Boulton, was not slow to urge, whenever his interest demanded it, with all the ingenuity and influence he could exert by tongue, pen or ample pecuniary resources. Other competitors were driven from the field, and the Hornblowers especially, as the most formidable, were prosecuted, nay, persecuted relentlessly, for alleged infringements on Watt's inventions, particularly on the principle of the separate condenser, until they were ruined, although they pluckily kept up the fight for years. It is only within the past few years that not only has the vast utility of Hornblower's compound engine been demonstrated, but the injustice done him by Boulton and Watt has been admitted by those most competent to judge.§

It was surrounded by a family of mechanics and engineers that Josiah Hornblower grew up to manhood, and became proficient in all that pertained to mining and machinery, and especially "fire-engines." His attention was not confined

* Encyclopedia Britannica, 3d ed., art. "Steam Engines."

† "Century of Inventions," by the Marquis of Worcester, No. 68. See Thurston, *ut supra*, pp. 19-23.

‡ See the Specifications, quoted by Thurston, *ut supra*, 99.

§ For a fuller account of Hornblower's engine, and the controversy with Boulton & Watt, see Appendix I, Note A.

solely to mechanics, for it is said that "without the aid of a liberal education, but with a strong mind and studious habits, at a very early period of life, he became acquainted with some of the most intricate, and at the same time most noble branches of science. Mathematics, magnetism, electricity, optics, astronomy, and in short the whole system of natural and moral philosophy, became his favorite studies."* While he was engaged in the erection of an engine at Anglesea,† being at the time not twenty-four years of age, a call came to him from London. He went thither, and was asked by the agent of Col. John Schuyler, of New Jersey, to erect a steam-engine at that gentleman's copper mine in America.

The story of the discovery of this mine has been often told: how Arent Schuyler, a scion of the wealthy and distinguished family of that name at Albany,‡ having first settled at Pompton,§ about 1710|| removed to New Barbadoes Neck,** where he owned a great tract of land on the eastern bank of the Passaic, nearly opposite what was then known as Second River (now Belleville), which bade fair to impoverish him;

* A Collection of American Epitaphs and Inscriptions, by the Rev. Timothy Alden, New York, 1814, No. 1063, Vol. V, 234-5. His father's tastes ran in the same direction, which accounts for the son's bent of mind. In 1755 his father wrote to him that he had been making successful experiments with an electrical machine of his own contriving, by which he could apply the galvanic current to any part of the human body, to relieve local pain. This is one of the earliest instances on record of the use of electricity in disease.—*Hornblower MSS.*

† Proceedings New Jersey Historical Society, May, 1851, p. 161.

‡ The statement is made (on the authority of Alden's Epitaphs, in Barber & Howe's "Historical Collections of New Jersey," New York, 1845, p. 155, that "Aarent Schuyler came to this country, from Holland, in early life, depending upon his industry alone, under Providence, for a support;" that is, that he was poor. In fact, he was born at Albany, in 1662, being the sixth child of Philip Pieterse Schuyler, one of the two founders of the family in America, and who was at this time a wealthy man, though still young.—*History of New Netherland*, by Dr. E. B. O'Callaghan, New York, 1855, Vol. II, 177; *History of the County of Hudson, New Jersey*, by Charles H. Winfield, New York, 1874, 531-4; *New York Genealogical and Biographical Record*, April, 1874, 60.

§ In 1635 he and Major Anthony Brockholst, both then of New York, bought 5,500 acres on both sides of the Pompton river; Schuyler lived where is the present village of Pompton.—*Historical Sketch of the County of Passaic, New Jersey*, by William Nelson, Paterson, N. J., 1877, 25.

|| Winfield, *ut supra*, 533.

** The old name of the neck or peninsula lying between Newark bay and the Passaic and Hackensack rivers, New Jersey.

how one day, about 1714-15,* an old slave found a heavy greenish stone and took it to his master, whose curiosity being aroused he had it assayed, when it proved to be a rich specimen of copper ore; how—and here the story is enriched by the addition of a legend which, with appropriate local coloring, has done duty for many ages and in many nations—the delighted master offered to reward the slave by granting him any three requests he might make, whereupon the old negro, after ponderous deliberation, begged that he might be allowed to remain all his days with his master, that he might have all the tobacco he could smoke, and that he might have a dress-

*Gordon (Thomas F.), in his *Gazetteer of New Jersey*, Trenton, N. J., 1834, p. 11, gives the date as "about 1719," and subsequent writers have followed him, although he gives no authority for his statement. But Brigadier-General Robert Hunter, Governor of New York and New Jersey, writing from New York, November 12, 1715, to the Lords of Trade, encourages them to believe a way has opened for the supply of copper coinage, "There being a Copper mine here brought to perfection, as you may find by the Custom house books at Bristol, where there was imported from this place about a Tonn in the month of July or August last, of which copper farthings may be coined," etc.—*New York Colonial Documents*, V, 462. This undoubtedly refers to the Schuyler mine, and appears to fix the date of its working as early as 1715. It is not unlikely that the actual discovery of the copper was made at least a year before, as the first samples would have to be sent to England for analysis, and a report received thence, ere the mine would be "brought to perfection," as the Governor somewhat exultantly announces. Writing again in 1720, Governor Hunter reports "copper but rare," in New Jersey.—*Ib.*, V, 556; and even doubtingly writes: "Some Copper as 'tis Said but I never Saw any."—*Documents Relating to the Colonial History of the State of New Jersey (New Jersey Archives)*, edited by William A. Whitehead, Newark, 1832, Vol. IV, 450. In 1721 he reports: "there is a great quantity of iron ore, and some copper" in the province of New Jersey.—*Ib.*, V, 22; *New York Colonial Documents*, V, 603. In April, 1721, there were 110 casks of ore from this mine shipped from New York to Holland, and the Surveyor of the Port of New York wrote that "Copper Oare now rises very rich and in great plenty in a New discover'd mine of one Mr. Schuyler in New Jersey."—*New Jersey Archives*, V, 7. The shipment of the ore to Holland excited the apprehensions of the Lords of Trade, who suggested that it should be prevented by act of Parliament. At the request of the Duke of Newcastle, one of the Lords Justices of the Treasury, Governor Montgomerie conferred with Col. Schuyler, in relation to the matter, but could only secure from him the promise that the English Copper Company should have the first sight of his ore when his ships arrived in England with it.—*Ib.*, V, 7, 9, 267. This was in 1731. Curiously enough, the New Jersey Legislature came to the relief of the English manufacturers in 1734, by imposing a duty of forty shillings per ton on all copper ore exported from the province not directly to Great Britain; and still more strangely, the first complaint against this measure came from Bristol, England, where were extensive brass and copper factories. It was found in practice that the law was evaded by shipping the ore to New York and thence to England or other countries; but the Bristol traders feared the act would discourage mining operations in the province.—*Ib.*, V, 376, 406.

ing-gown like his master's, with big brass buttons, and being urged to ask for something more commensurate with the importance of the favor he had done his owner, thought he would be satisfied with a little more tobacco.* Prof. Kalm, the Swedish botanist, states that "some Dutchmen who lived in Philadelphia," still (in 1748) "preserved the old account among them" that "on digging in this mine, the people met with holes worked in the mountain, out of which some copper had been taken, and they found even some tools which the Indians probably made use of, when they endeavored to get the metal for their pipes."† While this may possibly have been the fact, it is to be borne in mind that Kalm was a stranger in a strange land, who might readily misunderstand local references like this, and his informants, living ninety miles away, were not likely to be familiar with the facts.‡ Authorities differ as to the character and value of the yield of this mine. While it is possible, even probable, that lumps and occasional pockets of nearly pure copper have been found in and about the neighborhood, there does not appear to have been a true vein of copper. Rather "it would seem as if a certain stratum of the rock had been injected with the metallic matter, not filling a cleft or fissure in it, but dispersing, and as it were, dissipating itself through the substance of the

* Winfield's Hudson County, 533-4; Gordon's Gazetteer of New Jersey, 11.

† Travels into North America, etc., by Peter Kalm, 2d ed., London, 1772, Vol. I. 300. This is probably the authority for the statement that "hammers and other tools were found in an opening which had been worked many years before that date (1719) by Dutch settlers."—*History of New Jersey*, Philadelphia, 1877, by John O. Raum, Vol. II, 354. The authority for the statement in the same work that this mine is located "in the town of Hanover, Morris County," is not given. The mine is in Union township, Bergen county.

‡ As an amusing instance of the liability of travelers to get their notes "mixed," it may be mentioned that Isaac Weld, Jr., in his "Travels Through the States of North America, during the years 1795-6-7," 4to ed., London, 1799, 151, relates a mythical story of the finding of this mine by a person who, "passing by at three o'clock in the morning, observed a body of flame arise out of the ground," and with prudent forethought drove a stake into the spot, and excavations being subsequently made there, copper was discovered. Weld had confounded the Schuyler mine with that near New Brunswick, which is said to have been brought to light (about 1750) in this marvelous manner.—See *View of the American United States*, by W. Winterbotham. London, 1795, II, 368.



sandstone," in the form of a "compact, dark-colored sulphuret" and carbonate of copper.* Such is the general characteristic of the outcroppings of copper in New Jersey. At one place in Paterson the trap-rock looks as if at one time it had been a mass of loose boulders, which had become partially fused by the heat, and was then permeated with the sulphides and carbonates of copper.†

It is strange that such exaggerated notions of the richness of this Schuyler mine should have prevailed so long. They were doubtless fostered by the owners from time to time. Thus, in 1833, when a new company was forming to work the mine, it was represented that "the ore of the principal vein yields from 60 to 70 per cent. of copper, and the vein will produce, it is supposed, from 100 to 120 tons of ore annually, which yields from four to seven ounces of silver to the hundred pounds; and, like most copper ores, a small portion of gold. When *pure copper* was sold in England at £75 sterling the ton, the ore of this mine was shipped from New York for that market at £70 the ton."‡ These statements (from Gordon's Gazetteer, p. 12) have been often quoted since, by writers who overlook the fact that Gordon is careful to say that they are given on the authority of "several respectable persons, who have the skill and proper means to judge of them"

* Geological Survey of New Jersey, by Prof. Henry D. Rogers, 1836, pp. 167-8; do., 1840, p. 160; Geology of New Jersey, by Prof. George H. Cook, 1863, p. 676; Lecture on the Natural History of New Jersey, before the Newark Mechanics' Association, June 3, 1828, by Dr. Samuel L. Mitchell, 19. Copper is said to have been found at Neversink, in 1639.—*Calendar of New York Historical MSS.*, Dutch, edited by E. B. O'Callaghan, Albany, 1865, pp. 226-7.

† In Marion street, between Totowa and Union avenues, Paterson, N.J. The grading of the streets in that vicinity has destroyed the vestiges which formerly existed of a large shaft and two drifts into the side of the hill, one running under Union avenue, and the other nearly at right angles to and under and some distance beyond Marion street. The writer penetrated the latter drift to a distance of seventy feet or more, about the year 1870. It formerly was still more extensive, he was told. The shaft and drifts were made more than a century ago, so far as he has been able to ascertain.

‡ These figures seem incredible, even though the omission of the word "sterling" after the £70, be intentional, and New York currency, or \$175, is meant. In 1770 only 41 tons of copper ore were exported from America, being valued at £853 13s. sterling, or less than £21 to the ton.—*Statistical View of the Commerce of the United States*, by Timothy Pickering, Hartford, 1816, p. 21.



—being doubtless the persons interested in the new company. Gordon himself, whose familiarity with the mineralogy and geology of New Jersey is shown in the opening chapter of his *Gazetteer*, is evidently incredulous, for he sarcastically remarks: "If the ores of the Schuyler mine give from four to seven ounces of silver to the quintal, and are abundant, they must be better working for the silver alone than most of the silver mines of the world; and the copper product must add enormously to their value."* However, the Old World people were continually expecting to find mines of all the valuable metals anywhere and everywhere in America, and when copper was actually found, even of the quality and quantity of that dug up near Second River, it was hailed as a great discovery, and as the precursor of the development of untold riches as the work should be pushed deeper. After nearly a century of vain prospecting in all parts of "New Netherland," this was really the first mine of any value that had been discovered.† When first worked, near the surface, there is rea-

*Gordon's *Gazetteer*, 12.

†This discovery stimulated renewed researches wherever there were surface indications of metals, however slight, and the trap rock of the First and Second Mountains of New Jersey was diligently probed within the next few years. Copper mining was carried on to some extent on the Kingsland estates, next north of the Schuyler property. In the *New York Gazette, or The Weekly Post-Boy* for February 17, 1755, the ferry at Second River is offered for lease, with the stone ferry-house, "within a mile both of Messrs. Schuyler's and Lucas's copper mines, which are both at work." The traces of silver found with the copper encouraged many to believe (as in 1833) that silver and perhaps gold could be found in New Jersey. Governor Burnet wrote to Lord Carteret, December 12, 1722: "It is confidently reported, that Silver & even Gold Mines are to be found in New Jersey. But there must be a great Allowance made for the humour that now prevails to run a Minehunting, & as I have yet nothing but very suspicious accounts of such Discoveries of Royal Mines, I cannot pretend to give any opinion yet about the truth of them. But I am inform'd that several persons have positively declared, that if they could be certain in whom the Title lay, & that they should have a reasonable share of them, they would make the discovery, & never otherwise."—*New Jersey Archives*, V. 64. The question as to the title to "Royal Mines," that is, mines of the precious metals, was referred to the Attorney General and the Solicitor General, who reported it (Nov. 30, 1723) to be their opinion that by the charter granted to the Proprietors of New Jersey "only the Base Mines within that Province passed to the Grantees, and that the words of the Grant are not Sufficient to carry Royal Mines, the property whereof Still Remains in the Crown."—*Ib.*, V. 74. Three years later Governor Burnet, referring to this opinion, said he had not since heard from the people who had declared they "had a prospect of silver mines," "nor can I give them any encouragement to make a discovery, unless Your Grace (the Duke



son to believe that the mine was highly profitable, although the yield averaged only about 100 tons per annum, for up to 1731 but 1,386 tons of the ore had been shipped to the Bristol Copper and Brass Works.* As England did not permit the smelting and refining of ore in the colonies, the produce of the mine was all transported across the ocean. Encouraged by the returns from their workings, the sanguine owners pushed operations with vigor, until in the course of thirty years the mine had been carried down to such a depth that it was scarcely profitable to sink the shafts lower, on account of the difficulty in pumping out the water by hand and horse-power.

The new "fire-engines," which had recently come into general use in the manufacturing districts of England, seemed to afford the opportunity to continue the advantageous operation of the mine for many years longer, and Col. John Schuyler, who had the management of the property for his brothers and himself, their father having died,† through his agent in London ordered one of these wonderful machines. This was probably in 1748 or 1749. In the latter year Benjamin Franklin, ever interested in natural science, visited the mine, and in February, 1750, N. S., writes to a friend:

"I know of but one valuable copper mine in this country, which is that of Schuylers in the Jerseys. This yields good copper, and has turned out vast wealth to the owners. I was at it last fall, but they were not then at work. The water has grown too hard for them, and they waited for a fire-engine from England to drain their pits. I suppose they will have that at work next; it costs them one thousand pounds sterling."‡

of Newcastle) shall think fit to obtain His Maj'ty's instructions to me, what share His Maj'ty will be pleased to empower me to offer to them in case of a discovery." —*Ib.*, V, 129. It were vain to conjecture the amount of silver and gold that would have been produced from New Jersey mines had "His Majesty" adopted a liberal course in this matter. If the opinion quoted is good law, the title to all gold and silver mines in New Jersey is now vested in the State, as the successor of the Crown.

* Gordon's Gazetteer, 11.

† Arent Schuyler's will was proven July 6, 1732; the mine was left to his three sons.

‡ Letter of Franklin to Jared Eliot, from Philadelphia, February 13, 1749-50. — *Works of Franklin*, edited by Jared Sparks, Boston, 1838, VI, 107.



It was four years or more after the engine was ordered ere it was in readiness for transportation. Then Josiah Hornblower, who had doubtless had something to do with its construction, was engaged to accompany it to America and superintend its erection and first working. We may easily believe there was no small stir in the quiet home-circle when his departure was determined upon, and there was, it may be imagined, a natural feeling of pride that one of their family, and he so young, should have been selected for so important a trust as the introduction of steam-power into the new continent. Moreover, though they all supposed, as he did himself, that he would return home as soon as his errand was done, and he had seen his "fire-engine" running satisfactorily, great were the risks attending an ocean voyage in those days, when it took weeks and sometimes months to traverse the pathless waste of waters, and when none had as yet dreamed of substituting steam as a motive power in ocean navigation in lieu of the fickle winds. The event was so noteworthy that his elder brother, Jonathan, made this entry in his diary:

"May 8, 1753.—Brother Josiah set out for Falmouth to go in a tin ship to London, in order to sail to New York, North America."*

Nothing is said of the object of his journey; that was too well known to need explanation in a private diary.

When did Hornblower arrive in America, with his precious freight? We can fix the date almost to a certainty. The New York newspapers of the summer and fall of 1753 mention, either in the news or the advertising columns, the arrivals of vessels at that port. Among them all there is but one that seems to meet the requirements of the case, and that is the *Snow Irene*, whose arrival is chronicled in both the *New York Mercury* and the *New York Gazette, or The Weekly*

*A granddaughter of this brother sent in 1844 to the late Chief-Justice Hornblower the above extract from her grandfather's diary. It was communicated to the writer by Mr. Justice Bradley.

Post-Boy, of Monday, September 10, 1753. The latter says:

"Last Night arrived here the *Snow Irene*, Capt. Garrison, in about twelve weeks from London."

A perusal of the newspapers of the day would indicate to the careful reader that the *Irene* was no common vessel, and that Capt. Garrison was more than an ordinary seaman, for there are numerous references to both. The ship had been built at Staten Island five years before, for the transportation of Moravians to their missions in the New World, and had even made a voyage to Greenland on this errand. Captain Nicholas Garrison, a native of Staten Island, had been converted to the faith of the United Brethren in 1736, by association with the saintly Bishop Spangenberg, and thenceforward devoted his life to their cause, spending his last years among them at Bethlehem, Pennsylvania, where he died in 1781.* The vessel was most appropriately named the *Irene*, for she was indeed a messenger of *peace*. On this voyage she bore to America the means of utilizing a power which was destined to have a scarcely less potent influence in civilizing the New World than the Gospel itself, which the little ship had been built to carry to the heathen. This passage was twice as long as usual for her, as she averaged but six weeks between London and New York for several years, making four trips annually.

Mr. Hornblower's experience was such that he ever after had a dread of crossing the ocean.† That there were passen-

* Some further account of the *Irene* and of Captain Garrison will be found in Appendix I, Note B.

† Other vessels crossing at the same time experienced great hardships. Says the *New York Gazette*, in the same issue that announces the arrival of the *Irene*: "Last Week arrived at Sandy Hook, and has since gone up to Amboy, the Brig (*Charming Sally*, Captain Heysham, of this port, from *Hamburgh*, having had a passage of sixteen Weeks from Land to Land, in which they were reduced to the short Allowance of a Bisket a Day per man, for a great while, and in all Probability some of them would have perished, had they not met with a Boston Vessel a few Weeks ago, who help'd them to a small Supply. The last Piece of Meat they had was dressed the Day they got into the Hook."

gers of intelligence on the *Irene* on this occasion appears from the statement in the *New York Gazette*: "By some gentlemen, passengers in Captain Garrison, we are told, that his Excellency Governor Osborne, was to embark for this place some time in the month of September instant."

Nothing is said of the extraordinary freight brought over on the stout little craft. The young engineer was a prudent man, and did not care to publish abroad the errand on which he had come. The laws of England at that time strictly prohibited the exportation, even to the colonies, of artisans or machinery calculated to build up industries that might rival those of the mother country.* Even though "fire-engines" were not included within the prohibition, the announcement of the arrival of such a machine at New York might have provoked a curiosity that would have been vexatious and caused delay. Aside from this, it is difficult to explain the silence of both the *Gazette* and the *Mercury*—unenterprising as they were, compared with modern standards—on a subject of such vast interest as the introduction of steam-power into the field of American industries.† James

The *New York Mercury* of the same date says: "Last Week Captain Heysham of this Port arrived here from Holland, but last from Dover, after a very tedious Passage of 17 Weeks; 'tis said had their last piece of Meat in the Pot, when they got into the Hook."

In a letter to Mr. Hornblower from his youngest brother, Isaac, dated Nov. 6, 1804, is the following passage: "Mr. John Sadler was at our house soon after he returned from America, and he told us we should not see you again in this country (England), for he was very sure you would not attempt to cross the sea again if you might have all England, on account of your having had so bad a voyage out; therefore we gave up all thoughts of having the pleasure of seeing you any more in this world, which gave us all much grief."—*Hornblower MSS.*

The *Irene's* latest advices from the Old World were from Paris, May 28; London, June 8; Edinburgh, June 14 (?), according to the *New York Gazette*, which in September cheerfully published copious extracts from the London newspapers of those remote dates, as "news."

* Blackstone, IV, cap. XII, 11.

† That Col. John Schuyler had sufficient influence to secure the tacit assent of the authorities in England to the exportation of his "fire-engine" appears probable from the favor in which he was held by the Royal Governors of New York and New Jersey. He was recommended to Governor Cosby for a seat in the Council of New Jersey, June 2, 1732, by Lewis Morris, subsequently Governor of New Jersey, who described him as "of the Dutch Church he is a person of A good Estate son to that Schuyler who own'd the copper mine and one of the three to whom the mine was devised by the father."—*New Jersey Archives*, V, 318. Governor Cosby

Parker, the editor of the *Gazette*, was moreover a Jerseyman, who took special pains to give intelligence affecting his native province.*

The next mention we find of the novel machine is in the account-books of the Schuyler mine:

"1753.

"Sept. 25.—To cash pd for 8 days, carting ye engine &
boards to ye mine at 6s. ----- £2 8 0."

This corresponds with the previous dates. Josiah Hornblower left home May 8, 1753, for London, via Falmouth; waited there two or three weeks for the *Irene* to sail, and after a voyage of three months arrived in New York Septem-

recommended Schuyler for the vacancy caused by the death of Col. Peter Baird (Bayard?), and in his letter of August 7, 1734, to the Lords of Trade, says of him: "The Gent'n whom I offer for your Lordships recommendation is one of the greatest riches in this Country being Owner of the great Copper Mine in New Jersey from whence are sent yearly to the Bristoll Company considerably quantities of copper Ore and a gentm'n who not only in point of fortune but capacity and Inclinations to Serve his Maj'ty I Esteem as the most fitt person to Succeed Coll. Baird in that Station. I therefore entreat the favour of your Lordships to recommend this Gentm'n to his Ma'tie for his Ma'ties approbation and appointment."—*New Jersey Archives*, V, 374, 402. On September 5, 1735, he again urged the appointment, which was soon after made.—*New York Colonial Documents*, VI, 36. Governor Morris accepted the resignation of Colonel Schuyler with great reluctance, December 1, 1739, saying in a letter to the Duke of Newcastle: "This Schuyler is part owner with his two brothers of ye famous Jersie copper mine, & is Intrusted with the management of it; he had often earnestly press'd me to be discharg'd, protesting he could not attend the Councill without the greatest prejudice to his private affaires, w'ch indeed I believe was true; but I was loth to discharge him because he was a man of good sence & great interest in his neighbourhood, & withall firmly in the interest of the present government. However, his attendance at the distance from his habitation at the places that I am to hold Councills and Assemblies in, being of so great hurt to his private affaires I at last consented to dismiss him."—*Papers of Lewis Morris*, edited by W. A. Whitehead, New York, 1852, 119-20. And again, writing in 1745 to the Lords of Trade, he says: "John Schuyler is a man of Good sense and large substance being suppos'd not to be worth less than 60 or 70,000 pound, and is very much in the interest of the Government, but having the sole management of the copper mines w'ch are in that family, could not be prevail'd on to attend the Councill nor cannot be prevail'd on to attend it; being so prejudiciall to his own private affaires."—*Ib.*, 218. It is not unlikely that Col. Schuyler was obliged to exert all the influence he could command to secure permission to export his "fire-engine," and perhaps this accounts for the delay of four years or more which elapsed between the ordering and the arrival of the engine.

* Parker was a native of Woodbridge, New Jersey, where he was born 1714, and lived most of his life, although having printing presses not only there but at New Haven and New York.—*History of Printing in America*, by Isaiah Thomas, Worcester, 1810, II, 99, 121, 273, etc.; *Contributions to the Early History of Perth Amboy*, etc., by W. A. Whitehead, New York, 1856, 375.

ber 9, 1753, and in the course of the next two weeks saw his precious engine transported—doubtless by water to Second River, and thence by land—to the mine.

The young engineer may well have been dismayed by the prospect that confronted him when his engine was set down in pieces near the mine. He had encountered untold dangers in getting it there; but his task was just begun. The only skilled help in the country upon which he could depend for the erection of the machine was the few men he had brought with him. There was, perhaps, scarcely another mechanic in all America who had the slightest idea of the construction of a steam-engine. So he had to lay out the whole work, even to the minutest details; to locate the engine-house, fix its dimensions, furnish drawings of its various elevations; direct the construction of the engine-bed, superintend the putting together of the boiler, the engine and the connecting pumping machinery, and in short to see to everything. All this took time. Stone had to be quarried and hewn into shape; clay had to be dug and burnt into brick; lime brought from distant towns; “fire stone” carted from the mountain; trees felled for the heavy timbers, and in some instances brought long distances by “slays” over the snow to the mine; and at last, when the house was in readiness, the boiler and engine had to be set up in their new quarters. With admirable forethought, Mr. Hornblower had brought with him duplicate and even triplicate parts of the engine, to supply deficiencies in case of accident.* Otherwise it would have been necessary to wait until they could be imported from England, for it is safe to say there was not a shop in America where the necessary castings could have been made. And this was only a little more than a century ago! The entries†

* Proceedings New Jersey Historical Society. May, 1851. 162.

† For these extracts the writer is indebted to Judge Bradley, who copied them from the books in 1865. It is fortunate that he did so, for the books and other family records of the Schuyler family were consumed by a fire which (November 15, 1870) destroyed the residence of Arent H. Schuyler, grandson of Colonel John Schuyler.

in the mine books tell their own story so plainly that it is worth reproducing them:

1753.			
Oct. 25.	To carting 624 bushels lime to ye mine for ye engine house.....	£2	0 0
	To carting 66 days, clay & stone & 300 boards to ye mine 6s. pr day.....	19	16 0
	To 11 days carting 3000 shingles & 10 thousand brick &c. to ye mine.....	3	6 0
Dec. 28.	To cash pd for 16 days carting timber to ye saw-mill & mines for ye engine house at 6s.	4	16 0
1754.			
Jan. 8.	To 6 days slaying timber for ye engine.....	1	16 0
Feb. 24.	To 10 days slaying stone & timber for ye engine ..	3	0 0
Mch. 1.	To cash pd for carting timber for ye engine house..		15 0
Apr. 2.	To cash pd for sashes in the engine house.....		10 6
June 13.	To cash pd Josiah Ward for 1 days carting fire stone for ye engine from the mountain.....		8 0
	132 days carting stone & timber for the engine house at 6s. per day.....	39	12 0
July 13.	To pd Elizabeth Davis for a tree for ye engine house.....		10 0
	2 days carting.....		12 0
Oct. 10.	To pd Thos. Childs for 11½ days mason work at the engine house.....		9 0
Oct. 28.	To pd Thos. Plummer & Thos. Barnes for putting the boiler at ye engine house together.....	35	1 6
1755.			
Jan. 11.	To pd Benj. Smith for work done on ye engine house as per his acct & receipt	52	5 6
Mar. 12.	To 52 days carting stone & fire wood for ye engine	15	15 0

The last two items indicate that the engine was ready for firing up some time between January 11 and March 12, 1755, or nearly a year and a half after its appearance in the New World. The day has at last arrived when the wonderful machine is to be set to work, and the young engineer is to see the fruition of his long-deferred hopes, after eighteen months of anxious toil. Let us accompany him on this eventful morning. As we near the long-disused shaft of the mine we see an odd-looking building, shingle-roofed, something like

twenty or thirty feet square, and as high as it is long, through one wall of which projects the walking-beam, terminating in an arc—resembling a huge arm with a sort of claw on the end, clutching, as it were, the pump-rod, which descends one hundred feet into the earth. Entering the engine-house, we behold the strange machinery which is to move that mighty arm we have just seen outside. At our feet is a small door, into which wood is being thrust by the attendant, to feed the hungry flames within. Above the furnace is a large dome, the lower part of which is inclosed by brick-work, as if to preserve the heat, while the upper part is seen to be brightly-polished copper. This is the boiler, eight or ten feet in diameter and about the same in height. On a stout frame of beams, directly above the middle of the boiler, and connected with it by a short pipe, towers the huge cylinder, three feet in diameter and eight feet high, the upper rim flangeing out two or three inches, to hold a wooden jacket. From the top of the cast-iron cylinder rises again the piston-rod, which is connected by links and bolts with an arc on the inner end of the great walking-beam of heavy timbers, firmly bolted together, which rests on sectors on the stout brick wall on one side of the building, the outer end projecting several feet beyond, to connect with the pump-rod, as we saw before we entered the house. Between the engine and this wall hangs a narrow board, with pins and holes in various places, to engage the valve handles and move them at the proper times and to the proper extent. This is connected also with the walking-beam, so that the motion of the latter regulates the former, and the engine once started works automatically. From a small tank of water, supported on a frame several feet higher than the cylinder, descends a pipe, from which one branch runs over the top and another into the bottom of the cylinder, the latter pipe projecting a few inches upward on the inside. The fire has been raging fiercely for some time. The heavy lid resting on an open valve, and constituting the only safety-valve then known, which depends almost

entirely on the weight of the atmosphere to keep it down, has begun to tremble slightly, indicating that there is an abundance of steam. The young engineer opens one and then the other of the two simple gauge-cocks projecting from the top of the boiler, and they corroborate the testimony of the safety-valve. Then, with an anxiety born of the importance of the occasion, and a confidence which is the creature of his experience and his knowledge, he himself opens the steam-cock in the narrow neck communicating between the top of the boiler and the bottom of the cylinder.* The steam rushes into the cylinder, filling it instantly. Another cock is opened, and the water from the tank above is allowed to spurt up into the bottom of the cylinder, through a "rose" on the end of the pipe projecting upward, and a fine spray is thrown up against the bottom of the piston, which has been resting at the top of the cylinder. As the spray rises and then falls again, it instantly condenses the steam, which drops to the bottom of the cylinder in the form of water, and runs out by the force of gravity through another pipe, and down into a hot-well beside the furnace. What little air was left is driven out also, and a vacuum remains, which, being abhorred by nature, the powers of the air are exerted to fill it, which is done by the pressure of the atmosphere forcing the piston down to the bottom of the cylinder, the space above the piston being all open. This space is now filled by a stream of water from the upper branch-pipe from the tank. The engineer has so skillfully calculated the weight of the pump-rod and the water to be lifted by it, at one end of the walking-beam, and the pressure of the atmosphere on the piston-head at the other, and has so accurately adjusted the respective arms of the walking-beam, that the weight of the atmosphere on the pis-

* "It required three hands to work Newcomen's first engines. I have heard it said that when the engine was stopped, and again set to work, the words were passed, 'Snift, Benjy!' 'Blow the fire, Pomery!' 'Work away, Joe!' The last let in the condensing water. Lifting the condensing clack was called 'snifting' because, on opening the valve, the air rushing through it made a noise like a man snifting. The fire was increased through artificial means by another hand, and all being ready, the machine was set in motion by a third."—*Yesterday and To-day*, I, 36.

ton-head is just a little more than sufficient to lift the water from the required depth. The next problem is to reverse this operation, and that is done by again letting steam into the cylinder from below, when the subtle force counterbalances the weight of the atmosphere, the pump-rod descends by its own gravity into the shaft once more, thus raising the piston-rod, while the water above the piston-head runs off through a convenient pipe, into the hot-well before mentioned. Thus the piston rises and descends ten or twelve times a minute, with a stroke of six or seven feet. The waste of steam is enormous, as the cylinder is cooled each time by the spray, to condense the steam beneath the piston, and by the "packing" of water above it. Such was the Newcomen or Cornish "fire-engine" of 1755, set up by Mr. Hornblower at the Schuyler copper mine in that year.* As will be perceived from the description, it was extremely simple in its construction and in its operation, and though wasteful of steam and fuel, was exceedingly effective, so much so that, with some modifications, it is used to this day in some of the deepest mines of the world, in preference to any other. The dimensions of the engine given above indicate a capacity of about eight hogs-heads per minute, lifted 100 feet, or 720,000 gallons per day. But the pump cylinder was only about ten inches in diameter,

* For fuller details of engines of this date see Thurston, *ut supra*, 58-65. Half of the cast-iron cylinder of the engine brought over by Mr. Hornblower is now in the possession of S. J. Meeker, successor of D. M. Meeker & Son, and is at Mr. Meeker's foundry, in Clay street, near Ogden street, Newark, N. J. Mr. Meeker says the dimensions are as follows: Inside diameter, $34\frac{1}{2}$ inches; thickness of casting, one inch; length, $47\frac{1}{2}$ inches; projection of flange, $2\frac{1}{2}$ inches. This indicates that the cylinder was nearly or quite eight feet in length. John Van Emburgh, who had worked for Mr. Hornblower on the engine in 1793, informed Judge Bradley in 1865 that according to the best of his recollection the cylinder was about three feet in diameter and seven feet long, with six-foot stroke. Mr. Meeker's measurements, taken in May, 1883, confirm Mr. Van Emburgh's recollection to a singular degree. This fragment of cylinder was exhibited at the Centennial Exposition, at Philadelphia, in 1876, with a printed letter from Judge Bradley, giving some account of its history. Yet the official narrative of the Exposition is extremely inaccurate in its references to the engine of which this cylinder was a part. Mr. Van Emburgh described the boiler as a copper cylinder, "standing upright, eight or ten feet high, and as much in diameter, with a flat bottom and a dome-shaped top."—*Letter of Judge Bradley to D. M. Meeker.*

and the wooden pump-rod six inches square,* thus reducing the sectional area of the column of water to 42.48 square inches, and the discharge to about 134 gallons per minute, or a trifle less than 200,000 gallons daily. A much larger pump could easily have been driven by the engine, and the discharge of water correspondingly increased.

The mine and the new engine were highly attractive to travelers, who frequently went out of their way to see them. The Rev. Andrew Burnaby, in July, 1760, speaks of having gone to "Colonel John Schuyler's copper-mines, where there is a very rich vein of ore, and a fire-engine erected upon common principles."† There are like references in the writings of several other later travelers, but no particulars of value are given, and most of their statements are incorrect. Lieut. Isaac Bangs, of the Massachusetts militia, evidently a verdant young man, visiting the place on June 22, 1776, says with simple wonder of the mines: "The Work which we could perceive had been done in them was sufficient to astonish any Man who had seen so little of the World as I had. * * * The Engine (for throwing off the Water) * * * cost about 3 Thousand Sterling and would cast out of the Earth 80 Hogsheads in a Minute. This was actuated by Fire, and from fire it had its only Motion, and it was constructed upon the same Principles and much in the same Form as that of N. York for watering the City,‡ but (from necessity) the Works of Mr. Schuyler were greatly superior in Magnitude to those of the City, of which I could judge by the incombustible Matter which was still remaining."§ The credulous lieutenant

* These were the dimensions of the pump and pump-rod in 1793, as given in 1865 to Mr. Justice Bradley by John Van Emburgh, then one hundred years old. The discharge from the mine would doubtless be greater in 1755, when the water was lifted from a less depth, unless this was offset by the improvements made in the machinery in the course of forty years, which is also very probable.

† *Travels through the Middle Settlements in North America, in the Years 1759-60*, by the Rev. Andrew Burnaby, D.D., 3d ed., London, 1798, 76.

‡ The reference is doubtless to the water-works erected in 1774 and completed in the spring of 1776, by Christopher Colles, in Broadway, between Pearl and White streets, New York.—See *History of the City of New York*, by Mary L. Booth. New York, 1859.

§ "Extract from the Journal of Isaac Bangs." *Proceedings New Jersey Historical Society*, May 20, 1858, Vol. VIII, 121.

put too much faith in the "Old Man who accompanied us (them) as a Pilot," or else the engine was extravagantly costly and marvelously effective, doing nearly as much service as the engines of either the Newark or the Jersey City Water-works to-day!* The "80 hogsheads in a minute" clearly should be *eight* hogsheads, as already shown.

The engine was at last set to work, and so far as his business engagement was concerned the young Englishman was now at liberty to return home, if he felt willing to encounter once more the dangers of the tempestuous ocean. But he had discovered such invaluable qualities as a practical engineer, a man of business capacity, a mineralogist,† and withal a congenial companion, that Col. Schuyler was loath to part with him, and urged him to make his home in America, and to undertake the superintendence of the mine and engine. But more potent influences still were operating on the handsome young stranger. Through his association with the Schuylers he had become intimate in the family of Colonel William Kingsland, of New Barbadoes Neck, occupying the plantation of three hundred acres next adjoining that of the Schuylers.‡ The bright eyes of the beautiful Mistress Elizabeth Kingsland, daughter of the aristocratic Colonel; had long fascinated him, and it is possible had so dazzled him as to cause something of the long delay in getting his "fire-engine" in successful operation. Be that as it may, having persuaded her to enter into an engagement with himself, he was easily induced to accept Colonel Schuyler's offer, and

* This statement of Lieut. Bangs has been accepted without question by subsequent writers, although a moment's reflection ought to convince any one of its incorrectness. "Eighty hogsheads in a minute" would be a prodigious discharge for such a mine as that of the Schuylers: it would be at the rate of nearly 8,000,000 gallons daily. In 1882 the average daily quantity of water pumped at the Newark Water-works near Belleville was 9,680,160 gallons daily, with the most approved engines and pumps, costing \$33,000 yearly to operate and maintain.

† Alden's Epitaphs. *ut supra*, V, 234.

‡ "By will, dated July 29, 1741, proved July 26, 1742, Edmund Kingsland gave to his son William three hundred acres next adjoining Schuyler; also one-third of the meadow and one-third of the cedar swamp."—*History of the Land Titles of Hudson County, N. J.*, by Charles H. Winfield. New York. 1872. 327.

decided to take up his residence at Second River, marrying Miss Kingsland in that same year, 1755.* His wife, who was five years his junior, from her mother inherited Huguenot blood, and on that side was connected with some of the most distinguished families of French and Dutch descent in New York—the De Riemer, Coerten, Selyns, Drisius, Steenwyck, Gravenraet, Gouverneur, and other families.† On her father's side she was allied to some men who had been prominent from an early day in the history of New Jersey. Her father, in addition to his military title, on which he prided himself, was also a judge of the Bergen Common Pleas.‡ Mrs. Hornblower was not only the daughter of a judge, but the great-granddaughter of another—William Pinhorne, Second Judge of the Supreme Court of New Jersey, in 1704; and great-niece of another—Roger Mompesson, New Jersey's first Chief Justice, 1704.§ She was destined to be the wife of a judge, and the mother of one of the most eminent of our Chief Justices—the late Joseph C. Hornblower, the honored President of the New Jersey Historical Society during the first twenty years of its existence.

* His father wrote him, September 3, 1755, from "Near Birmingham," England, directing his letter to "Mr. Josiah Hornblower, Fire Engineer at a Copper Mine in New Jersey in America," and beginning thus: "DEAR SON—Nine or ten days since, Mr. Finch of Dudley called here and told me he saw a gentleman in London that lately arrived from America, and gave him a particular account of you, and a very agreeable one, which rejoiced me very much; moreover says you are married; if so, I heartily wish you and your spouse all the happiness a marriage state is capable of yielding." No record has been found of the marriage, but the terms of this letter and other circumstances confirm the statement that it took place in 1755.

† Margaretta Coerten, wife of Col. William Kingsland, was the daughter of Henry or Henricus Coerten, merchant, of New York, and Elizabeth De Riemer, married in New York May 23, 1701; Margaretta, their daughter, was baptized Dec. 13, 1704. Henricus Coerten was baptized in New York Dec. 22, 1675, being the son of Barent Coerten, of New York, and Christina Wessels, of Dordrecht, who were married in New York May 30, 1675. Elizabeth De Riemer was the daughter of Huybert De Riemer, who married Catharine ——— at Meuse, France, where their two children, Elizabeth and Isaac, were born.—See Appendix II for fuller genealogical notes.

‡ Commissioned March 8, 1749.—*Winfield's Hudson County*, 545-6.

§ William Pinhorne's daughter Mary was married to Edmund Kingsland, marriage license dated Nov. 8, 1703; their son, William, born in 1704, married Margaretta Coerten December 13, 1732.—See Appendix II. Pinhorne's daughter Martha was married Feb. 23, 1706, to Chief Justice Roger Mompesson. Pinhorne was a son-in-law of Lieut.-Governor Richard Ingoldsby, of New Jersey.—*Provincial Courts of New Jersey*, by Richard S. Field, New York, 1849, 75; *N. Y. Gen. & Biog. Record*, January, 1871, 28; *Winfield's Hudson County*, 126-7.

Mr. Hornblower managed the mine for something more than five years after the engine was started, in the interest of the Schuylers. Part of the time (from May 1, 1759) he employed John Sadler, at a salary of £50, or \$125, per year, to work the engine.

The French and Indian war meantime had broken out, and the little settlement about the copper mine had been profoundly stirred by the departure for Canada of the gallant and chivalrous Colonel Peter Schuyler, a brother of Colonel John Schuyler, the former having been assigned to the command of the battalion furnished by New Jersey for the occasion. During the winter of 1755-6 the enemy became so bold and menacing that great fears were entertained of an invasion even across the Delaware. Pennsylvania erected forts on the west side, and New Jersey appropriated money and caused forts and block-houses to be erected along the chain of mountains skirting the east bank of the Delaware river, and recalled Colonel Schuyler and his battalion to man them. Additional incentives were offered to encourage enlistments for the campaign, which was to be pressed toward the Canadian frontier in the spring, and employers everywhere through New Jersey became so uneasy at the desertion of their serving-men that they importuned the Legislature to restrain the recruiting agents.* A more politic course was pursued at the copper mine. The men were encouraged to form a home battalion, in which they could exercise themselves in military tactics to their heart's content, and prepare themselves for really effective service in the field if needed. Of this company, Mr. Hornblower was commissioned captain, January 26, 1756, a marked compliment to the young stranger, and due in a measure, no doubt, not only to his influential connections, the Kingslands and the Schuylers, who

*History of New Jersey, by Thomas F. Gordon, Trenton, 1834, pp. 123-4; Sussex Centenary, Newark, 1853, pp. 31 *et seqq.* Forts were erected about the same time at points far inland from the Delaware; one of them was located about where the village of Mountain View now is, on the banks of the Pompton river, as appears by an old map in the New Jersey Historical Society's rooms.

would have weight with the royal governor, Belcher, but to his own reputation as a man of scientific attainments and unusual executive ability. On July 25, 1764, a new commission was issued to him, as "Captain of Cadets, including all persons who are or shall be employed in the business of the mines on New Barbadoes neck, and to take rank from the date of your first Commission as Captain dated the 26 day of January, Anno Dom. 1756."*

In all probability Mr.—or Captain—Hornblower took up his residence on the west side of the Passaic river in 1758, having purchased on May 19 of that year a tract of land just north of the present bridge over the river. A year later we find him associated with Col. John Schuyler, of Second River, and others, in "Biles-Island Lottery, to raise £750 for the Benefit of Trinity-Church, at Newark, and towards building a new *English Church at Second-River*, consisting of 5,000 Tickets, at Two and a half Spanish Dollars each, 1062 of which to be fortunate," etc. There were 1062 prizes offered: one of \$1,000, two of \$500, three of \$200, four of \$100, twenty of \$50, thirty of \$20, two hundred of \$10, and several hundred for smaller sums, aggregating \$10,625 of prizes; then there were to be 3,938 blanks, "fifteen *per cent* for the Use of the Church, (\$1,875." This added to the prize-money offered, \$10,625, makes up the proceeds of the "5,000 tickets, at Two and a half Spanish Dollars each." Lotteries were prohibited in New Jersey at this time, but the good Church people of the day thought it no harm to evade the spirit so long as they complied with the letter of the law, and therefore many of the drawings of such lotteries were advertised to take place on Biles Island, and other places, just beyond the limits of the State.† Accordingly, it was announced in the case of this lottery that "the drawing (was) to commence at *Biles-Island*, the first of August next." "Col. Josiah

* Original commission, in possession of Judge Bradley.

† Contributions to the *Early History of Perth Amboy*, ut supra, 321-3.

books show that he took a leading part in the erection of a new school-house at Second River, and that he was permitted to pay a large share of the cost out of his own pocket. His new dwelling was a plain but spacious and comfortable stone building, which, altered somewhat, principally by encasing the stout stone walls with weather-boards and the substitution of a mansard roof for the ancient sloping eaves, has been for many years occupied as a public house, its quondam prominence and character being indicated by its name, "The Mansion House."

As already stated, Mr. Hornblower worked the copper mine for the Schuylers for several years. On July 1, 1761, he and one John Stearnshall* took a lease of the mine from the Schuylers for the term of fourteen years, agreeing to pay one-seventh of the ore as rent,† the lease being subsequently extended for ten years longer. March 25, 1765, Messrs. Stearnshall and Hornblower assigned half of their interest to Philadelphia parties—John Kid, William Parr, Judah Fouke and William Dowell. After two or three years the Philadelphians retired, and no work appears to have been done in 1768 and 1769. Then New York parties became interested, and the mining was carried on until 1773, when the engine-house was destroyed by fire,‡ damaging the engine and so effectually

* Stearnshall would seem to have been a capitalist desirous of investing in mining property. He entered into an agreement, November 25, 1761, with New York parties "relative to obtaining a grant for some mines, supposed to be in the provinces of New York, Connecticut or New Jersey."—*N. Y. Hist. MSS., English, 727.*

† One-third of the rental was paid to Col. John Schuyler, one-third to Col. Peter Schuyler, and one-third to Adonijah Schuyler, the sons of Arent Schuyler, who had left the mine to them.—*Hornblower Account-books in possession of Judge Bradley.*

‡ Gordon gives the date as 1765, and says that "a workman, who had been dismissed, having set fire to the engine-house, the works were discontinued."—*Gazetteer*, 11. Lieut. Bangs, *ut supra*, states that at the time of his visit, in June, 1776, "nothing had been done in these Mines for 4 years, the Engine having been burnt about that Time." The absence of any accounts with the mine after 1773 indicates that the latter year is most probably the time when the fire took place. Corroborative proof is found in the fact that the Legislature in 1773 passed a law sanctioning a lottery to raise £1,050 proclamation money, to put gravel on the road built some years previously by Col. John Schuyler at his own expense, for three miles through the cedars and the meadows, between Second River and the main road to New York: the money raised from the lottery was to be paid to Josiah Hornblower, to

discouraging the lessees that all work, except some surface digging by the men, was abandoned for twenty years. During the few years that the mine had been worked under the lease, the operations do not appear to have been at all profitable, and indeed the books indicate that the expenses often exceeded the income. Mr. Hornblower's account-books show the receipts from the mine to have been as follows, for the years named: 1765, £670, 7s., 9d., New York money, or in dollars, \$1,676; in 1766, \$4,357.87; 1770, \$4,785; 1771, \$7,787; 1772, \$1,237; 1773, \$2,855. The ore realized from eight to ten dollars per hundred-weight.

The troublous times preceding the Revolution were well calculated to discourage an enterprise of this magnitude, and this no doubt was one reason why no effort was made immediately to rebuild the engine-house after the fire of 1773. So for a time Mr. Hornblower devoted himself closely to mercantile pursuits, and, his tastes being preferably for mechanics and purely business concerns, he does not seem to have taken any part in public affairs until after the war of the Revolution had fairly begun. At the Newark town-meeting, March 12, 1776, he was appointed on a committee of twenty-one prominent citizens of the town*—for what purpose is not stated, but probably in relation to the pending war. In 1778 he was chosen one of the commissioners of appeal in cases of taxation,† and in March, 1779, was designated by the town-meeting as one of a committee of five to present the interests and views of the town to the Legislature.‡ In this capacity he represented the people so well that the great county of Essex

be by him issued to William Dow and Arent J. Schuyler, the three to report to the Legislature when the work was done. This act was passed Sept. 20, 1772, but did not receive the royal assent until April 13, 1774.—*Allinson's Laws*, 385, and contemporary minutes of the Legislature. (The law took effect, however, from the date of its passage.) It is doubtful if this law would have been sought for had the copper mine been idle at the time. Mr. Hornblower, in later years, told his son, the Chief Justice, that he surveyed this road through the swamp about the year 1765, and that the cedar thicket was so dense that a way had to be cut with axes, and lanterns used in the day-time, in making the survey.

* Records of the Town of Newark, New Jersey, Newark, 1864, 158.

† *Ib.*, 158.

‡ *Ib.*, 159.

a few months later sent him as one of her three members to the Assembly, or lower house of the Provincial Congress. It seems surprising that a man with so little previous experience in public life should have taken at once the leading part that Mr. Hornblower did in the Legislature. It is convincing proof of his superior ability and force of character. It would appear, too, that, as the war progressed, it aroused in him a class of emotions which had hitherto lain dormant for want of occasion to develop them—drawing him from his absorbed interest in the merely utilitarian, to enlist his whole heart and soul in the cause of humanity. We saw many a like instance in the late war of the Rebellion, when thousands of men who had been intent only on money-getting, or in literary or scientific pursuits, threw all aside at their country's call. "Righteousness exalteth a nation,"* and so long as our country preserves righteousness enough to merit it, she will find an inexhaustible fund of patriotism upon which to draw in time of need.

Taking his seat in the Legislature which met at Trenton on October 26, 1779, three days later there was a heated debate over a joint resolution of the Council, calling upon Isaac Collins, the publisher of the *New Jersey Gazette*, to furnish the name of the author of a communication signed "Cincinnatus," published in No. 96,† which the supersensitive Coun-

* One of the mottoes of the East Jersey Proprietors, incorporated in the seal of the New Jersey Historical Society.—*East Jersey under the Proprietary Governments*, by William A. Whitehead, 2d ed., Newark, 1875, 181; *Proc. N. J. Hist. Soc.*, Nov., 1846, p. 3.

† Minutes of the Legislature, *passim*. The article in question was printed in the *Gazette* of Wednesday, October 27, 1779, four days before the annual election of Governor by the Legislature, and was manifestly intended to affect the result of the election. Pretending to give advice to that body in selecting a Chief Magistrate, the writer indulged in a most caustic attack on the course of Governor William Livingston, ridiculing his very promiscuous contributions to the newspapers on all occasions, and even going so far as to intimate that at the outbreak of the Revolution Livingston had hesitated before deciding to risk his fortune in the patriot cause. The article was exceedingly severe, and to one who prided himself as Livingston evidently did on his literary abilities, the criticisms on his writings must have wounded his *amour propre* almost as much as the imputations on his patriotism. While it is not certainly known who "Cincinnatus" was, the internal evidences point very strongly toward Abraham Clark, an eager and ambitious pol-

cillors regarded as objectionable, although the printer insisted that it "did not contain the most distant disrespectful allusion to that honorable body."* The resolution was viewed by the Assembly as a blow at the liberty of the press, and they refused to concur in its adoption, Mr. Hornblower voting against it. On November 3, when barely a week in the Legislature, and layman as he was, he was appointed on a committee of three to draft a new general election law; and his business capacity and sterling integrity were recognized the week following by his selection as one of the committee to settle the treasurer's accounts—a duty which was assigned to him many times subsequently. His zeal in the prosecution of the war was shown by his votes in favor of every measure that would help the patriots and harass their enemies. When the Assembly voted to raise \$9,000,000 for war purposes (Nov. 20, 1779), he favored \$10,000,000. (This was paper money, be it remembered.) Although his wife's brother,

itician of Elizabethtown, as the author or at least the inspirer of the communication. It was extremely gratifying to the Governor and his friends that on the Saturday following this publication, when the Legislature met in joint meeting to choose a Governor, Livingston received 29 votes, to only 9 against him (for Philemon Dickinson). He exultingly commented on the fact in a letter to a friend: "My enemies have been so much disappointed at the last election for governor, that with all their groundless slanders, and the dirty libel they published against me, they could only muster 9 negatives to 29 affirmatives."—*Memoir of the Life of William Livingston*, by Theodore Sedgwick, Jun., New York, 1832, 339. Washington condoled with him: "I have not seen the piece to which you allude, but I should be much surprised had you been suffered to escape without paying a tax so ancient and customary. * * * I believe with you that to persevere in one's duty, and be silent, is the best answer to calumny."—*Ib.*, 343. Livingston was greatly offended at Collins for having published the article, but subsequently became reconciled to him, and again contributed freely to his paper.—*Ib.*, 344-5, 248-9. It is very probable that the action of the Council in seeking to ascertain the identity of "Cincinnatus" was taken at the suggestion of the Governor. It shows the independence of Mr. Hornblower's character, that while he voted for Livingston on this as on subsequent occasions, he refused to punish the printer who had published the attack on the executive.

* Selections from the Correspondence of the Executive of New Jersey, from 1776 to 1786, Newark, 1848, 199-200. Collins said in reply to the Council: "Were I to comply with the requisition contained in this resolution, without the permission of the author of the piece alluded to, I conceive I should betray the trust reposed in me, and be far from acting as a faithful guardian of the liberty of the press. I may further say that I am entirely at a loss to conjecture upon what ground this requisition has been made; for it is evident that the piece in question does not contain the most distant disrespectful allusion to your honorable body."

Edmund William Kingsland, and the latter's wife and her father (Capt. John Richards), sympathized with the British to such an extent that they could not stay within the American lines,* Mr. Hornblower nevertheless acted as chairman (Nov. 25 and Dec. 24, 1779) of a committee of the Assembly to make more stringent and effective the "Act to prevent subjects of this State from going into or coming out of the enemy's lines," and he voted (Nov. 30) to disfranchise tories or traitors; and so little sympathy had he with cowardice in any form that he opposed omitting the administration of the "iron-clad" oath to members of the Legislature who had removed from their county to avoid the enemy. He believed that all property should pay its share of the public burdens, and opposed any exemptions from taxation. At the same time he was averse to allowing merchants or farmers to take advantage of the popular necessities to charge exorbitant prices for their goods or products, and so he was always found voting for acts of the Legislature to regulate prices, to prevent extortion. Such laws have never been effective, in practice, but they were favored in those days by the patriots as a part of the necessary war legislation of the time. Adam Smith's essays on the laws of political economy were then scarcely known on this side of the Atlantic. At the same session (Feb. 26, 1780), he was one of the committee to draft a bill "for completing the quota of troops belonging to the State, in the service of the United States," and a week later (March 3, 1780), helped to pass the bill. Consistently with his hatred of tories, and his sympathy with all patriots, he voted in favor of permitting the zealous chaplain, the Rev. James Caldwell, and his houseless congregation at Elizabethtown, whose church and parsonage had been destroyed by the British,† to use the dwelling of a citizen who was then

* Winfield's Hudson County, 546; Minutes of the Council of Safety of the State of New Jersey in 1777, Jersey City, 1872, pp. 83-4, 108. See also the *New Jersey Gazette*, July 28, 1779.

† On the night of January 25, 1780.—*New Jersey Journal*, January 27, 1780.

with the enemy. Re-elected to the Assembly in 1780, Mr. Hornblower was chosen Speaker of that body, which then included some of the ablest men of the State. In this as in the former session, his vote was invariably recorded in favor of every measure calculated to promote an energetic and effective prosecution of the war, the aid and comfort of the patriots, and the harassing of the enemy and his sympathizers. The proceedings of the Legislature of those days seem strangely like the doings of that body twenty years ago. As might have been expected, Mr. Hornblower's relentless vigor in pressing the enemy, and now his prominence as Speaker of the Assembly, made him a conspicuous figure, whom the British and their tory allies would fain have captured or killed. He was hated, persecuted and pursued almost to the death by refugees, some of whom had been his neighbors and friends in former times, and on several occasions he nearly fell a victim to their vindictive thirst for vengeance. An incident illustrating the dangers to which he was continually subject, is thus related in the *New Jersey Gazette* of April 4, 1781:

"Thursday last* a party of the enemy from New York attempted to carry off the Honourable Josiah Hornblower, Esq. Speaker of the Assembly of this State.—They were in the habit of peasants, and personated Jersey militia. In this manner they came to the ferry nearly opposite his house in Essex county, and called for the boat, which was carried over to them, the people not suspecting their villany. The ferryman, on his arrival, observed G. R.† on their cartouche boxes, and therefore on his return, with some address, let the boat fall down the stream with the tide, in order to give a hint to Mr. Hornblower's family that all was not right. This had the desired effect: Mr. Hornblower escaped out of the back door a few minutes prior to their coming in at the front. Two of the villains pursued him and were taken. The others got off, after making Mr. Hornblower's son-in-law, Mr. Cape,‡ prisoner—who has since returned on parole."

* March 29, 1781.

† *Georgius Rex*.

‡ This was James H. Kip, who had married Mr. Hornblower's eldest daughter, Margaretta. At this time he appears to have been managing the ferry for his father-in-law.

The *New Jersey Journal*, published at Elizabethtown, of the same date, has this account of the affair:

"Last Thursday morning about twenty refugees came to the ferry at Second River, and hailed the boat to bring them over, saying they were Hackensack militia; upon which Mr. James Kip, supposing it to be so, carried the boat over, when they made him prisoner, and proceeded to this shore, in order, as is supposed, to capture the Hon. Josiah Hornblower, Esq.; but he fortunately, though very narrowly, made his escape. The neighborhood assembling, the enemy thought it prudent to retire with precipitation; however, they paid for their temerity, two of the party being made prisoners."

According to tradition, Mr. Kip threw his oars into the water as he neared the shore, and shouted to Mr. Hornblower, who was standing on his porch, ready to welcome the visitors, "Father, the British!" whereupon Mr. H. escaped. It is also said that the enemy made a thorough search of the house, either for the owner or for valuables, and actually set fire to the building, but were persuaded to desist by Mrs. Kip, and left the house with apologies. She had had the presence of mind to hide the family silver, and for this service it afterward went to her, some of it being yet in the possession of her descendants. One large goblet, still in existence, had belonged to Edmund Kingsland, Mrs. Hornblower's grandfather.

After two years of service in the lower branch of the Legislature, Mr. Hornblower was "called up higher," the people of the county manifesting their approval of his course and their confidence in his ability by electing him to represent them in the Council, or upper branch of the Legislature. He took his seat October 27, 1781, and two days later was deputed to settle the treasurer's accounts. In this body, as in the lower, work was often assigned to him that properly pertained to the legal profession, indicating that he was thought to possess unusual knowledge, for a layman, of what the law ought to be. For example, "an act for the relief of persons who have lost their deeds and other instruments of writing, containing the title of their lands," after being read a second

time, was committed to Mr. Hornblower (Nov. 3, 1781), and when he reported it, at the next session, with amendments, they were all agreed to but one, by both houses (Sept. 26, 1782). It is true that many laymen believe they could draft laws better than the members of the bar, but experience seldom justifies that belief. In 1783 (June 11), he voted with the majority against a proposed modification of the Articles of Confederation (Art. VIII), relating to the raising of revenue, until the ratifying act had been acceptably amended (June 17). June 14 he voted with the Council to adopt the remonstrance and protest of the Assembly against the conditional cession by Virginia of the Northwest Territory, that State offering to cede part of the territory in question if Congress would guarantee its claim to the rest. The title to these Western lands, which were not included within the boundaries of any of the colonies, and were consequently regarded as Crown lands, had been a vexed question from the beginning of the Revolution, and New Jersey had, indeed (June 16, 1778), refused to ratify the Articles of Confederation because the ownership of these lands had not been secured to the Congress of all the States,* and in December, 1780, sent another remonstrance to Congress on the subject.† The resolutions of 1783 say: "We cannot be silent, while viewing one State aggrandizing herself by the unjust Detention of that Property which has been procured by the common Blood and Treasure of the Whole, and which, on every Principle of Reason and Justice, is vested in Congress for the Use and general Benefit of the Union they represent."‡ Virginia ultimately ceded her claim to the lands unconditionally, thus virtually acknowledging the justice of the position assumed by New Jersey. On June 17, 1783, Mr. Hornblower and Mr. Lawrence were named on a joint committee of the Legislature

* Civil and Political History of New Jersey, by Isaac S. Mulford, M. D., Camden 1848, 451-5.

† *Ib.*, 469.

‡ Minutes of the Council, *passim*.

to urge upon Congress the propriety of locating the federal capital in New Jersey, and on the second day thereafter Mr. Hornblower "read the report of the committee in his place," recommending that the Legislature should give Congress such jurisdiction over a district of twenty square miles "as may be required by Congress as necessary for the honor, dignity, convenience and safety of that august body," and that the State should give £30,000 in specie toward procuring lands and erecting buildings thereon. This report was agreed to unanimously. It was a high compliment that Mr. Hornblower should have been made chairman of a committee charged with so important a mission. The subsequent action of Congress showed that the committee's labors had not been without effect, and for a time there seemed a strong probability that the national capital would be established in New Jersey. The rivalries of Philadelphia and New York, however, and a compromise on the question of the assumption of the State debts by the Nation, overrode all advantages offered by New Jersey, and secured the location of the city of Washington on the banks of the Potomac.* At the following session of the Legislature Mr. Hornblower was appointed (Dec. 16, 1783) with Abraham Clark and Adam Boyd to "make further inquiry into the right of this State to the jurisdiction of" Staten Island, "now in the possession of the State of New York"—the first time that vexed question was raised since the colonies had become sovereign States. It was half a century later ere a settlement was effected. On August 10, 1784, he was appointed with Abraham Clark on a committee to confer with an Assembly committee regarding the recom-

* History of the Formation of the Constitution of the United States of America, by George Bancroft, 3d ed., New York, 1883, Vol. I, 129, 130. Congress adopted an ordinance Dec. 23, 1781, to select a district not less than two nor more than three miles square, on the banks of either side of the Delaware, not more than eight miles above or below the lower falls of the Delaware, for the capital.—*Journal of the American Congress from 1774 to 1788*, Washington, 1823, IV, 458. A full and interesting summary of the efforts to locate the capital in New Jersey will be found in the "History of the Presbyterian Church in Trenton, N. J.," by John Hall, D.D., New York, 1859, 435-40.

mendation of Congress for raising troops and holding a treaty with the Indians. Four days later he voted for the bill giving to General the Baron Steuben the privilege of occupying for life the confiscated farm of a Bergen county tory; and on the 25th of the same month he voted to appropriate £300 to provide a house for the President and Congress at Trenton, at their next session.

Summing up his six years of service in the Legislature—1779-80 in the Assembly, and 1781-2-3-4 in the Council—the minutes of both bodies show that he was extremely prompt and attentive to his duties; that he brought to their discharge a wide knowledge of public affairs, of the interests of the community, of the popular wants, and of the necessities of the young State; a quick comprehension of the most effective means for accomplishing desired ends, and a dauntless courage in acting according to his convictions. He was conservative, yet progressive. He voted to uphold the dignity of land tenure, as in requiring a freehold qualification for voters; defended the liberty of the press; favored a liberal compensation to public officers. He believed in the most energetic prosecution of the war, in “making treason odious,” and in keeping it so. His frequent appointment on conference committees indicates that he was a man in whose honesty of purpose both houses had confidence, and that he had the ability to impress his views upon others, and to conciliate opposition.

His record was so satisfactory to the people of the State that on October 28, 1785, he was chosen by the Legislature to represent New Jersey in the Congress of the Confederation, his associates being Lambert Cadwallader and John Cleves Symmes, both men of wide reputation.* It is said

* Extract from minutes of the Joint Meeting:

“October 28, 1785: It was *Resolved*, That three Delegates be elected to represent this State in Congress. Honourable Lambert Cadwallader, John Cleves Symmes and Josiah Hornblower, Esquires, appeared to be duly elected. *Resolved*, That the said Lambert Cadwallader, John Cleves Symmes and Josiah Hornblower, or any two of them, be empowered to represent and vote on behalf of this State in the Congress of the United States of North America, from the first Monday in Novem-

that he was elected without previous knowledge, and when the committee called to apprise him of the unexpected honor, they found him, in farmer's attire, in his fields, gathering corn, and with all due ceremony proceeded to address him then and there, and to deliver their message.* On the first day of his term, Monday, November 7, 1785, Mr. Hornblower took his seat in Congress, which then met in the City Hall of New York, in Wall street. "The Congress Office" was located at No. 81 Broadway, corner of King (now Pine) street, and the various departments were scattered about the town in modest quarters, as became the impecunious and already tottering young republic.† There was little opportunity for a man to distinguish himself in such a body as Congress was at that time. Washington was in retirement at Mount Vernon, gazing with dark forebodings into the future of his country; Adams was far away, making friends for the nation at the Court of St. James; Jefferson was at Paris, trying to preserve the good will of the fickle French; Hamilton had withdrawn in despair, after one year's service, from a Legislature which

ber next, until the seventh day of November, 1786, unless a new Appointment shall sooner take place."

The Legislature had enacted, December 15, 1783: "The Council and Assembly in Joint Meeting, at the first Sitting of the Legislature after the annual Election, and at any other Time when the same may be necessary, shall elect and choose any Number of Delegates not less than three, nor more than seven, to represent this State in the Congress of the United States, and shall agree upon the Form of Credentials to be given them of their Appointment, which Credentials, signed by the Chairman of the Joint Meeting, shall authorize the said Delegates to sit and vote on the Part of this State, in the Congress of the United States, during the Year or Time for which they were elected, unless in that Time superseded by a new Appointment."—*Section 24, Election Law, Wilson's Laws*, Trenton, 1784, p. 353. The law contemplated the constant attendance of but two members on the sittings of Congress, so that one of them could attend to his private business; as the voting was by States, two could represent New Jersey as well as three. In Gordon's History of New Jersey it is stated (p. 324), that in 1784 William Churchill Houston, John Beatty, Samuel Dick, Lambert Cadwallader, John Cleves Symmes and Josiah Hornblower were elected to Congress. This is an error as to Symmes and Hornblower: Charles Stewart should have been included in the list instead. Another oversight of Gordon's in the same connection might be noted here. In 1787 (October 31), William Paterson was elected to Congress, as he states, but he neglects to mention that Mr. Paterson declined, and on November 6, 1787, Jonathan Dayton was elected in his place.—*Minutes of Joint Meeting, passim*.

* The late Chief-Justice Hornblower often related this incident.

† New York Directory for 1786.

had no power but to recommend to other Legislatures. John Hancock was broken down by ill health. Among the half hundred members, Richard Henry Lee, Charles Pinckney and David Ramsay were perhaps at that time the most widely known.* So little interest was taken in the deliberations of Congress that two weeks elapsed ere enough States were represented to allow of the election of a President, when John Hancock was chosen (November 23).† It was a month later before any business could be transacted, and almost the middle of January when Congress settled down to work. So meagre did the attendance continue that on January 30, 1786, a resolution was adopted "to write to the Governors stating the inconvenience arising from a want of a sufficient number of States to proceed on the business of the nation."‡ Day after day, week in and week out, Mr. Hornblower was found in his seat at roll-call, waiting patiently for a like punctuality on the part of the other members. Few of them thought it worth while to be regular in their attendance. Why should they? When they met it was only to realize more and more their own impotence. The need of a better government became more obvious daily. There was no cohesion between the members of the Confederation. Each State and each section was bent on having its own way, regardless of what became of the Union.§ Said William Grayson in a

* The late Chief-Justice Hornblower often accompanied his father to New York at this time, and was profoundly impressed with the dignity and majesty of the Congress; but he was only nine years old at the time.

† The fact of Hancock's election to the Presidency at this time is overlooked in most of the biographical compilations. He sent in his resignation June 5, 1786, on account of continued ill health, being then confined to his bed, as his letter to Congress explains. Mr. Bancroft erroneously states (Hist. Const., I, 253), that David Ramsay was elected President. Congress chose him *Chairman*, in the absence of President-elect Hancock.—*Journals of Congress*, IV, 606.

‡ *Journals of Congress, passim*; Selections from the Correspondence of the N. J. Executive, 361.

§ Bancroft's History of the Formation of the Constitution, I, 26-7, 486-7; Mulford's History of New Jersey, 480-1; *Journals of Congress, passim*. Said Hamilton: "Each State, yielding to the persuasive voice of immediate interest or convenience, has successively withdrawn its support, till the frail and tottering edifice seems ready to fall upon our heads and crush us beneath its ruins."—*The Federalist*, No. XV, Dawson's ed., Morrisania, 1864, 99. Washington sadly confessed: "In

letter to James Madison, May 28, 1786: "Till lately Congress has been very inactive. It is a practice with many States in the Union to come forward and be very assiduous till they have carried some State job, and then decamp with precipitation, leaving the public business to shift for itself." * Already there was a profound jealousy in various quarters lest the Union should become more powerful than its parts. New York insisted upon retaining the advantages of its commercial supremacy, and reserved for its own use the revenue derived from imports, which was very oppressive to New Jersey. Virginia and the other Southern States demanded the opening of the mouth of the Mississippi, even at the price of a war with Spain. The very meagre record of the debates in Congress during those times gives us less information than could be desired as to the part Mr. Hornblower took in the delibera-

a word, the Confederation appears to me to be little more than a shadow without the substance; and Congress a nugatory body, their ordinances being little attended to." Governor Wm. Livingston declared: "Without the utmost exertions of the more patriotic part of the community, and the blessing of God upon their exertions, I fear that we shall not be able, for ten years from the date of this letter [February 17, 1787] to support that independence which has cost us so much blood and treasure to acquire."—*Sedgwick's Livingston*, *ut supra*, 403. John Adams, in his first inaugural speech to the United States Congress, March 4, 1797, thus summarized the history and characteristics of the Congress of the Confederation: "Negligence of its regulations, inattention to its recommendations, if not disobedience to its authority, not only in individuals but in States, soon appeared, with their melancholy consequences; universal languor, jealousies, rivalries of States; decline of navigation and commerce; discouragement of necessary manufactures; universal fall in the value of lands and their produce; contempt of public and private faith; loss of consideration and credit with foreign nations; and, at length, in discontents, animosities, combinations, partial conventions, and insurrection; threatening some great national calamity."—*Works of John Adams*, Boston, 1850-56, IX, 106. See also "Life and Times of Alexander Hamilton," by J. C. Riethmüller, London, 1864, 173; "Life and Epoch of Alexander Hamilton," by George Shea, Boston, 1879, 72-4; "Alexander Hamilton," by Henry Cabot Lodge, Boston, 1882, 36-43. The Tories and refugees who had been compelled to flee to Nova Scotia beheld, with unconcealed delight, the bickerings between the States, and did their best to encourage the discontent. Said a writer from St. Johns: "If we view the respective States in the Union, we shall perceive anarchy rather than government, and the lowest order of citizens in their Legislative councils." * * * The Southern States, "perfectly aware of the insidious conduct of New England, have constantly thwarted her designs, and clearly perceive that their material interest is really incompatible with the aggrandizement of the Northern States, whose ambition and numbers, in time, bid fair to be very dangerous neighbors, to the middle as well as more Southern Provinces."—*Political Magazine (London) for December, 1786*, 403-4.

* Bancroft's Hist. Const., I. 505.

tions of that body, but his votes on various questions indicate that he favored strengthening the Union at every point, as the only means of preserving it. Thus we find him (February 7, 1786) voting to raise the largest sum proposed to pay the interest on the public debt, though a majority of the States was not of the same opinion just then. A commissioner of the Continental Loan Office in New York having failed to take the full oath prescribed by Congress for its appointees, Mr. Hornblower voted (May 1) that the office be considered vacant. While Congress was fixing the salaries of the Commissioners of Accounts between the Nation and the States (May 17), he opposed limiting their terms to one year, but favored extending them—evidently to insure greater permanence in the federal administration. May 19, we find him taking conservative ground in behalf of the liberty of the private citizen, voting against allowing witnesses, not belonging to the forces of the United States, to be punished at the discretion of courts martial for refusing to testify before such courts. Congress, however, decided to strike out the words “belonging to the forces of the United States.” Five days later he seconded a motion “that the acceptance by the United States of any cessions heretofore made, or which shall hereafter be made, by any State, of the claims of such State to western territory, ought not, nor shall be construed nor cited as confirming, or in any wise strengthening the claim of such State to any such territory not ceded.” On this question he was in opposition to the extreme State Rights men of Virginia, but he was always found taking this stand, which, indeed, was only consistent with the views he had advocated in the New Jersey Legislature. The Indian problem then, as for nearly a century since, was a troublesome one, but was complicated at that time by the claims of the States most concerned—as those of the South—to exercise independent authority over the aborigines within their limits—a claim which Mr. Hornblower opposed uniformly, insisting that the Nation should exercise exclusive control over the red men (June 29,

July 20, July 24, August 7). The Northern States generally took the same ground, and the Southern States as generally wished to have the rights of the individual States recognized in the premises. He approved the report of the Board of Treasury (August 8) in favor of establishing the decimal system of currency, and prohibiting separate State coinage—an important step toward nationalizing the country. Again, he cast his voice in favor of requiring the officers of the new Northwest Territory to take an oath of fidelity to the United States; the South generally voting in the negative, probably out of deference to the old claims of Virginia to the territory, and enough Northern members voted the same way to defeat the proposition. He repeatedly voted to urge the reluctant and delinquent States to comply with the requisitions of Congress in regard to the imposts, to vest the sole power of collecting them in Congress, as a source of revenue wherewith to meet the national obligations. These votes * indicate clearly his general views on the desirability, not to say the absolute necessity, of so increasing the powers of Congress that the Nation might be able to assert and maintain its right to existence. Thus favoring, as he did, “a more perfect union” between the States, he was placed in an extremely embarrassing position at an early day of his Congressional experience, by the alarming and revolutionary course taken by his own State, in just the opposite direction. Abraham Clark introduced (February 20, 1786) in the New Jersey Assembly a series of resolutions, subsequently adopted by that body, instructing the State’s delegates in Congress to “vote against each and every ordinance, resolution or proceeding whatever, which shall produce any expense to New Jersey, for the promotion or security of the commerce of these States, or either of them, from which neither the Union in general, nor this State in particular, derives any advantage, until all the States shall effectually and substantially adopt and carry into execution the impost” adopted by Congress April 18, 1783. It

* Journals of Congress, *ut supra*, IV, *passim*.

was also resolved not to "comply with the requisition of Congress of September 27, 1785, or any other of similar nature, requiring specie contributions, until all the States in the Union shall comply with the requisition of April, 1783, or at least until the several States, having the advantage of commerce which they now enjoy, solely from the joint exertions of the United States, shall forbear exacting duties upon merchandise for the particular benefit of their respective States, thereby drawing revenues from other States, whose local situation and circumstances will not admit their enjoying similar advantages from commerce." * This was a formal notice to New York and to Congress that unless that State allowed her import duties to go into the National Treasury, as the other States had agreed, New Jersey would break up the Union. The provocation was great, but this course was a rash one, and threatened complete disaster to the Confederation. Mr. Clark no doubt thought it would be a popular measure in New Jersey, whose people had grumbled for years at the unfair advantage inuring to New York by her absorption of the duties collected at her great port of entry. In this he was correct. He may have thought, also, that some such decisive stroke was needed to force a speedy settlement of the vexed question, and in fact it did indirectly have that result. But for a time the Union was on the verge of dissolution, and its friends everywhere deplored the action taken by New Jersey. A conservative view of the matter is presented in the following letter (hitherto unpublished) to Mr. Hornblower, from John Beatty, who had been associated with him in the Legislature, and had preceded him in Congress: †

PRINCETON 6th March 1786.

DEAR SIR—Altho I am not an antifederal Man, yet believe me, I have had few federal Ideas, since I retired to domestic life—The late extraordinary act of our Legislature, refusing a Compliance with the last requisi-

* Gordon's History of New Jersey, 327.

† For notices of John Beatty see History of 1st Pres. Church, Trenton, 403; Princeton College during the Eighteenth Century, by Samuel Davies Alexander, New York (1872), 127; History of Medicine in New Jersey, etc., 140; Minutes of Legislature, *passim*. He was elected to Congress in 1783 and in 1784.

tion of Congress, has however roused me from my Lethargy & I feel sensibly mortified & alarmed for a Conduct, which in my View is extremely reprehensible, & tends to the dissolving of an Union already too feebly united—You have doubtless seen the resolution to which I refer as is contained in the last Trenton Gazette, under the form of a Motion of Mr. A. Clark—If State Policy had dictated a Measure of this kind, they ought not to have added insult to the refusal, by declaring, they would not comply with any future requisition of that Body, unless it was made conformable to their Ideas; thereby denying the Constitutional Authority of Congress to frame such an Act—The reasons urged in the preamble to this *high and mighty Act of Sovereignty* in New-Jersey, are in part true & merit consideration: but surely we ought first to complain, before we attempt to redress ourselves, at the Expence of the Union at large—Were our Delegates instructed to ask of Congress an abatement of our Quota on account of our unfavourable local Situation in point of Trade; I persuade myself it would not be unattended to; more especially as no Standard, whereby to measure the contributions of the several States, has as yet, been permanently fixed; or rather been made the rule of apportionment—In what light Congress may view it, I know not: but surely our allies & friends, thro whose pecuniary aid, we have rose to our present Independence; will view it with Surprise and Jealousy, & as not tending to the Establishment of that National System of Revenue, which the resolution pretends to have for its object; and however modest, tho firm, their Demands of Retribution may have hitherto been; they will no longer speak the Language of Justice & Moderation, but I fear will become clamorous & persisting—

* * * How do you like your Situation & what are you doing in Congress—Our Indian affairs wear but a gloomy Aspect—This will prove to be the Case, untill we have possession of the western parts—What accounts are there from Mr. Adams & what Expectations have we of their* shortly evacuating them—

* * * If my letter is not too troublesome, I shall hope for an answer. If I have been too inquisitive: you will please to correct me—

Yours with much regard

JNO. BEATTY

The Honble Josiah Hornblower Esqr.

Congress took prompt measures to avert the impending disaster, and (March 7) appointed a committee to proceed to Trenton and represent to the Legislature “in the strongest terms, the fatal consequences that must inevitably result to the said State, as well as to the rest of the Union, from their refusal to comply with the requisition of Congress of Septem-

* The British.

ber, 1785.” * Mr. Pinckney, of South Carolina, the chairman of the committee, addressed the Legislature at length, pointing out the evils of this first attempt at nullification (which his own State was destined to imitate half a century later), and in the course of his argument ingeniously intimated that New Jersey could more easily have brought New York to terms by opening a free port on the west shore of the Hudson †—a hint which led to an abortive move in that direction. ‡ More pertinently, Mr. Pinckney threw out the suggestion of a “general convention of the States for the purpose of increasing the powers of the federal government, and making it more adequate for the ends for which it was instituted.” § New Jersey did reconsider her hasty action, though neglecting to honor the requisition of Congress, and voted to send commissioners to a general convention of the States, vesting them with power to consider the whole subject of the relations of the States. || Ours was the first State to take this broad step, and thereby paved the way for the convening of that immortal body, which a year later framed the Constitution of the United States of America.

Another subject that engrossed the attention of this Congress was the navigation of the Mississippi. Spain held the mouth of that mighty river, and hindered its free navigation from the north, which was felt to be an injury to the Southern and Western States. On the other hand, there was a feeling in the Northern States that if the Western Territory secured a free outlet by the Mississippi, that section of the country would drift away from the influence of the old States; and that in any event the country, enfeebled by a long and exhausting struggle, and lacking cohesive power, was in no condition to provoke another war, with Spain, for what was

* Journals of Congress, IV, 622.

† Bancroft's Hist. Const., I, 436.

‡ Gordon's History of N. J., 328; Minutes of Assembly, *passim*.

§ Bancroft's Hist. Const., I, 257.

|| *Ib.*

after all but a doubtful advantage, to a territory mainly a vast wilderness.* On this question the States divided on Mason and Dixon's line, the South voting solidly against any treaty with Spain that did not concede the navigation of the great river, while the North voted as solidly in favor of a treaty without such condition. Mr. Hornblower voted with the North uniformly on this question.† One of his colleagues, Mr. Symmes, was almost the only Northern member who favored the Southern and Western view of this subject, possibly because he already contemplated his subsequent vast purchases of lands in the future State of Ohio.‡ James Monroe was at this time a member of Congress from Virginia. He was very young—but twenty-eight—and his letters of the time teem with the spirit of an extreme and narrow-minded partisan, who deemed those who did not think alike with him on public affairs to be deadly enemies of the country. He took this matter of the Spanish treaty greatly to heart, and declared his belief that Mr. John Jay, the Foreign Secretary, was in league with the Northern and Eastern members to dissolve the Union. This much is perhaps necessary to explain the animus of the following extract of a letter written by him (Sept. 12, 1786), to James Madison:

"It will depend much on the opinion of Jersey and Pennsylvania as to the movements of Mr. Jay; and that of Jersey much on that of Mr. Clark, now with you at Annapolis. He put Hornblower in Congress, and may turn him out again, for he has no positive weight of his own. Clark has always been anxious for taking the Western lands from us. I should suppose him inclined to turn it to the best account. I conclude, therefore, that if he knows the delegation, especially his part of it, pursue a system of policy so contrary to his own and to what is in effect the interest of his country, he would dismiss Mr. Hornblower. Perhaps you may be able to hint to Clark that Jersey, except Symmes, was with the Eastern States upon this occasion."§

* Bancroft's Hist. Const., II, 389-91.

† Secret Journals of the Acts and Proceedings of Congress, 1775-88. Boston, 1821, IV, 45-57, 108-9, 611.

‡ Life and Public Services of John Cleves Symmes, by Charles H. Winfield, Proc. N. J. Hist. Soc., January, 1877.

§ Bancroft's Hist. Const., II, 388-9, 394.

Mr. Hornblower's votes in Congress clearly show that there, as in the New Jersey Legislature, he was a man of independent convictions, who hesitated not to differ from the great body of members, if his judgment led him that way, though he was by no means always in the minority. We can therefore smile at the petty ebullition of Mr. Monroe in characterizing this large-minded man, of such varied attainments and such wide experience, and who had been so repeatedly and signally honored in his own State, as having "no positive weight of his own." But the continuous wrangling between the States, the indifference of members to their duties, and the contempt into which Congress had sunk in the popular estimation, by reason of its want of power, must all have been extremely distasteful to a man of Josiah Hornblower's energetic, straightforward temperament, especially after his active and influential service in the Legislature of his State. Moreover, the entire system of organization was well calculated to crush out the individuality of members. It is not strange, then, that Mr. Hornblower retired permanently from such an unsatisfactory body at the end of his first term of one year, and cheerfully left others to enjoy the honor which had come to him unsought.*

* The Legislature, on November 7, 1786, re-elected Mr. Cadwallader, and sent Abraham Clark and James Schuurman in place of Mr. Hornblower and Mr. Symmes. The election of Mr. Clark at this time might appear to have been the outcome of the suggestion of Monroe to Madison, in the letter given above. In reality, however, it was no doubt because of his attitude in the preceding Legislature in favor of another flood of legal tender paper "money," with which the State was already deluged. The best men of the State were against it, as a dishonest measure, but the popular demand for "cheap money" would not be stayed, and even in Elizabethtown, his home, the honest and patriotic Governor Livingston was burned in effigy because he opposed the bill in the Council. Clark on this, as on other occasions, sided with the masses, and sought to take advantage of the clamor against the Governor to step himself into the executive chair; but he could muster only eight votes, as against thirty-eight for the gallant and honored Livingston. It is quite likely that his election to Congress a week later was brought about partly by the friends of the Governor, with a view to console him for his defeat in the gubernatorial canvass. From the character and disposition of Mr. Hornblower, we may be sure such a plan would meet with no opposition from him.—*Minutes of Joint Meeting, 1786; Bancroft's Hist. Const.*, I., 491, 497; *Gordon's Hist. N. J.*, 329. Gov. Livingston said, anent the proposed emission of paper: "I would see all such popularity as must be acquired at the horrid expense of sacrificing one's con-

We can now picture him retired from public life, enjoying in his charming, hospitable home on the peaceful banks of the Passaic, the well-earned *otium cum dignitate* so befitting a long and useful career, such as he had led. The dangers and struggles of the war were at an end. He had withdrawn from the turmoils of political life, and in the care of his large landed property, and the supervision of the education of his numerous family he found ample occupation.* He made companions of his sons and daughters. He discoursed with them upon the affairs of life, and upon mechanics and scientific themes generally. He was a profound believer in the infinite capacities of steam, and predicted that his children would live to see it in general use as a motive power on land as well as on water.†

In 1793, the New Jersey Copper Mine Association was formed by some sanguine capitalists—among them Jacob Mark, Philip A. Schuyler and Nicholas I. Roosevelt‡—at whose

science, and the National honour, and the public faith, and our federal obligations, and the ultimate and real interest of this State to—the devil.”—*Sedgwick's Livingston*, 398. In the letter from John Beatty to Mr. Hornblower, already given for the most part, he thus expresses his opinion of the project: “The State seems at present in a considerable convulsion, with regard to the Emission of a Paper Currency or Loan—perhaps no subject has interested all ranks of the people so much, since the revolution—The House of Assembly are no less divided—on the last division, 19 votes appeared for & 18 against the Bill—it is thought the Speaker will give it existence: tho it is extremely doubtful whether it will pass the Council!—The more thinking & prudent part of the State are against the Measure.”

* In a letter to a niece in England, December, 1788, he said: “Before the commencement of the late war I was in business, and we were in what is called good worldly circumstances; but since that period have cultivated a farm which I fortunately purchased about twenty years ago. I have indeed lately been in some honorary employments, such as Speaker of the (State) House of Representatives, three years a member of the Legislative Council of the State, and one year a Member of Congress of the United States; but to these stations very small emoluments are annexed.”—*Hornblower MSS., communicated by Mr. Justice Bradley.*

† Proc. N. J. Hist. Soc., May, 1851, 162.

‡ On February 4, 1793, Arent J. Schuyler, son of Col. John Schuyler, then deceased, leased to Philip A. Schuyler, of Bergen County, and Jacob Mark, of New York City, merchant, the mine property, for a term of twenty-one years, with the privilege of renewal for twenty-one years more, at a rental of one-tenth of the ore for the first term, and one-seventh of the ore for the second term; the lessees to “erect and rebuild a sufficient steam Engine within eighteen months,” and to “keep at least eight men at work for not less than eight months in the year.” The next day the lessees entered into an agreement “for the better carrying into execution their intentions of extending the Copper Works by Erecting Furnaces & Battering &

earnest solicitation Mr. Hornblower took charge of the works, at a salary of \$60 per month, and the promise of a one-sixteenth interest in the concern. He now set about rebuilding his old "fire-engine," which had lain idle for twenty years. John Van Emburgh worked on the engine for him at this time. Seventy years later he recalled the circumstance, remarking: "The engine was repaired and the works put in order under the supervision of Mr. Josiah Hornblower, who was a man of great skill. He did not talk much, but when he spoke no one could say he did not understand him, he was so clear and plain in what he said. He knew perfectly everything that was to be done. He had the engine under such perfect control that by a single hair he could stop it."* The management of the Association proved so unsatisfactory to Mr. Hornblower that in July or August, 1794, he retired from the superintendency, and thus his connection with the mines and the steam-engine ceased finally. The company then introduced German miners, because they could get them for low wages, but the work proving unprofitable was soon abandoned. The old engine again stood idle for several years, until the early part of the present century, when it was taken to pieces, and the copper boiler was broken up and carried to Philadelphia.† The only

Rolling Mills do declare that the works shall be carried on under the name & firm of the New Jersey Copper Mine Association." The property was to be represented by 640 shares, divided among those interested; three directors were to be elected annually: "The first Election for chusing directors shall be on the first Monday in January after the first steam Engine is Erected until which time the whole management of the Company's concerns shall remain with the Lessees." The directors were authorized to reserve not more than \$8,000 annually until \$20,000 should be accumulated, which should be invested as capital, to be used as necessity might require for the betterment of the property. Within a short time after this organization Nicholas I. Roosevelt, a New York merchant, but then of Bergen county, became interested in the company.—*Bergen County Deeds*, G, folios 194, 187; *Essex Deeds*, D, folio 127. Mark subsequently occupied a farm on the Passaic river bank, near the mine, known as "Laurel Hill," which had been sold by Mr. Hornblower.—*Bergen Deeds*.

* Conversation with Mr. Justice Bradley, in 1865. Judge Bradley writes: "I had asked Van Emburgh if he knew about the old engine in Schuyler's mine, without mentioning Mr. Hornblower's name, and I think I have given nearly his exact words forming a part of his reply. As the words of a plain man they tell a great deal."

† For these particulars of the working of the mine at this period the writer s

part of the engine known to exist now is the half-cylinder, already described.

Mr. Hornblower lived to see realized many of his own prophecies regarding the general use of steam. He lived to see the new and improved engines built by his relatives and by Boulton & Watt, who, located in the heart of the greatest coal and iron district in the world, were incessantly stimulated by fierce competition to make new improvements in the design and construction of machinery. He lived to see built, at his very door, the first steam-engine manufactured in America. Messrs. Roosevelt, Mark and Schuyler, Directors of the New Jersey Copper Mine Association, bought from Mr. Hornblower, August 29, 1794, six acres of land on the brook known as the Second River, with the privilege of erecting a dam and coal-house.* This was the beginning, probably, of manufacturing in Belleville. Here they established a foundry and machine-shop, and here smelting works were erected. Not far away was the ship-yard of Cornelius Jerolaman, who had the reputation of turning out the swiftest sloops that navigated the waters near New York. Roosevelt was sanguine and ambitious, and when Chancellor Robert R. Livingston, of New York, conceived an idea of a steamboat, Roosevelt, who was the chief, and perhaps at this time, the sole owner of the Belleville works, offered to build a steam-engine, rather than have the order go to England. He employed one Smallwood, then in charge of the smelting works, to construct it. Smallwood had come out with the first engine for the Philadelphia

indebted to Mr. Justice Bradley, who has Mr. Hornblower's account-books in his possession. Mr. Van Emburgh told Judge Bradley that the mine was not much more than 100 feet deep. Isaac Weld, Jr., in 1795-6-7, says of the mine: "Repeated attempts have been made to work it; but whether the price of labor be too great for such an undertaking, or the proprietors have not proceeded with judgment, certain it is, that they have miscarried, and sustained very considerable losses thereby."—*Travels*, 150. Efforts to work the mine have been made frequently since. The projected operations in 1833 have been referred to. An English traveler who visited the mine in 1833 says: "The mines are now reopened, a steam-engine erected to drain them, and the works are proceeding with spirit. It is the only copper mine worked in the United States."—*Travels through the United States of America and Canada*, by I. Finch, London, 1833, 277.

* Essex County Deeds, D, 127.

Water-works, sent by Boulton & Watt from Soho, England, and having erected it, settled at Belleville, instead of returning to England—as Mr. Hornblower had done before him. In the primitive state of American industries at that time, it was difficult to find skilled mechanics anywhere in the country, but fortunately at this juncture there arrived another young Englishman, in the person of John Hewitt, a pattern-maker by trade, whose skill was utilized in that direction. A German named Rohde was found to make the castings, and the three men set to work. Naturally, Mr. Hornblower took a great interest in the undertaking, and the men named boarded at his house while the work was going on. On October 21, 1798, the *Polacca*—a little craft, 60 feet long, with a 20-inch cylinder and 2-foot stroke—started out on her trial trip, the success of which is disputed. This might have been expected from Mr. Livingston's plan, which was to force a stream of water out of the stern by means of a powerful centrifugal pump. It is said that the same parties subsequently built an engine for John Stevens' steamboat in 1804, which was the first screw-propeller ever seen.* Roosevelt was undoubtedly a man of considerable ingenuity, and soon made for the little Belleville shops quite a reputation, though they never quite equaled in magnitude the great establishment after which he named them—Soho.

* Thurston's Hist. Steam-engine, 250, 264; History of the City of New York, by Mrs. Martha J. Lamb, 1880, II, 423-9; Proc. N. J. Hist. Soc., May, 1851, 162, and May, 1862, 117-34; Report of U. S. Centennial Exhibition, 1876, VI, 11. For the particulars concerning the employment of Hewitt and Smallwood, and their intercourse with Mr. Hornblower, the writer is indebted to the Hon. Abram S. Hewitt, the son of John Hewitt. He adds: "Rohde came to New York, and established what were subsequently the Allaire Works in this city. Allaire, whom I knew very well, was one of the first apprentices in the establishment. My father subsequently engaged in other business, and died at Trenton, in 1856, where steam-engines surrounded him on all sides. His life covered the era of its development and universal introduction. It is a singular coincidence that Mrs. Hewitt is the daughter of Peter Cooper, who built the first locomotive engine, while I am the son of the man who made the patterns of the first steam-engine that was built in America. Our children ought certainly to have plenty of 'go' in them!" The first successful locomotive in America was built by Peter Cooper for the Baltimore and Ohio Railroad, and run by himself, in August, 1829. It might be noted that Fulton's first successful steamboat was not run until August, 1807, nine years after the experiments at Belleville.

Mr. Hornblower was again in public life, having been appointed in 1790* Judge of the Essex Common Pleas, to which he was reappointed in 1795,† holding the position until compelled by ill health to retire, and “sitting on the bench,” we are told, “with dignity, uprightness and solidity of judgment.”‡ As the leading man in the neighborhood, he was frequently called upon to preside at public meetings when affairs of moment were to be considered.§

As the years after the war passed away, with them passed, also, most of the asperities of those days of bitterness. His family and his dignities increasing, a new and larger house seemed needed, and he built a spacious, elegant residence of stone, a short distance below his former dwelling. But when it was finished, neither he nor his wife could bear to leave the old home.¶ There they had lived most of their wedded life; there most of their children had been born, and there they preferred to die. And there they did die.

The same reasons that led to the erection of the new mansion, perhaps induced Mr. Hornblower to set up a family coach, after the approved fashion of the day. It was a gorgeous and ponderous affair, drawn by four horses, and caused the owner to be greatly reviled as an aristocrat. He was anything but that, being indeed a man of the people himself, simple and unostentatious in his tastes, and would never ride in his own magnificent coach, preferring instead to go afoot or on horseback.**

In person, he was tall and of commanding presence, and

* Minutes of Joint Meeting, and original commission, in possession of Mr. Justice Bradley.

† *Ib.*

‡ Alden's Epitaphs, V. 235.

§ See Appendix I, Note C.

¶ Letter to the writer from the Rev. Dr. Wm. H. Hornblower, March 21, 1877. The new house was occupied by Mr. Hornblower's son, James, and afterward by the latter's son-in-law, William Stephens, and family. It was torn down about 1856. Subsequently the plot was sold by Mr. Stephens to William M. Ackerman, of Belleville, who built the present dwelling, and later sold it to Mrs. Elizabeth Liscomb, of New York city, its present owner. So the writer is informed by Mr. William H. Stephens, of Belleville.

** Letter from the Rev. Dr. Hornblower.

courtly in his bearing. The Rev. Dr. Samuel Miller, of Princeton Theological Seminary, and Mrs. Finley, wife of the Rev. Dr. Robert Finley, of Baskingridge, and daughter of the Rev. James Caldwell, of Revolutionary fame, used to say that he was a man of more elegant manners, a more finished gentleman, than any one they had ever met.* And they were persons of culture, accustomed to the best society in the land.

He came of a Baptist family, and marrying an Episcopalian, they "compromised" by attending the ancient Reformed Dutch Church at Belleville.† In his latter years he appears to have been a member of the Episcopalian congregation, his death and that of one of his sons (John) being recorded in the books of Trinity (Episcopal) Church, Newark.

Mrs. Hornblower is described as a very beautiful woman, one of the most elegant ladies of the day. Adorning her person with silks and satins and velvets and diamonds, as became her position in society, she believed in adorning the Lord's house, too, and a crimson damask robe she gave for the pulpit of the modest little Dutch Church was long remembered with gratitude by the congregation, while it was an occasion of offence to her High-Church of England sisters.‡ During the stormy times of the Revolution, she sided loyally with her

* Letter from the Rev. Dr. Hornblower.

† Ib. In the letter to his niece, December, 1788, before quoted from, he says: "I rejoice with you that true vital religion, which was in some measure planted, or at least cherished, by the example and labors of your dear father (Jonathan Hornblower, Sen.), increases amongst you. In this country the religion of Jesus spreads more and more daily; here are no distinctions of pre-eminence given to any Christian Church: and most of the professors, though of different denominations, live together in great harmony and brotherly love. It is not uncommon for the young people here, although members of different churches, to meet together on the evening of the Sabbath for social worship." Dr. Hornblower, in the letter referred to above, says his grandfather communed in the Baptist Church in New York, but no record of the fact has been found. Chief-Justice Hornblower, when he settled in Newark, connected himself with Trinity Church, and had his first two children baptized in that church, May 10, 1806, as appears by the records in the custody of Daniel Dodd, Esq. About 1808 he united with the Presbyterian Church. The Rev. Joseph Willard, Rector of Trinity Church, Newark, and the Rev. Peter Stryker, Pastor of the Reformed Church, at Belleville, joined in preparing a biographical sketch of Mr. Hornblower, which was published in the newspapers directly after his death; in the *American Register*, Philadelphia, 1809, V, 269, and in Alden's *Epitaphs*.

‡ Ib.

English husband in defence of American Independence, although so many of her American kinsmen were ranged on the side of the British. On July 4, 1780, she was designated with Mrs. (Governor) Livingston, Mrs. Elisha Boudinot and Mrs. (Dr.) William Burnet, as a Committee of Essex County ladies, with others equally prominent throughout the State, to receive subscriptions for the succor of the country's defenders in the field.* After the war she dispensed a lavish and elegant hospitality, her house being fitted up with all the appliances that wealth and taste could supply for entertaining in a manner befitting her means and station.

Mrs. Hornblower died April 24, 1808,† and nine months later the spouse of her youth was laid beside her. A local newspaper of the day (the *Newark Centinel of Freedom*, Tuesday, January 24, 1809) says his death occurred "after a long and painful illness," and concludes a brief obituary with the remark that "through life, he was a useful, benevolent citizen." Another writer states that "in his last illness, the exercise of every Christian grace shone with peculiar lustre."‡

In the quiet "God's acre" about the old Reformed Church at Belleville, lie the mortal remains of this loving pair who through more than half a century of wedded life, and through dangers manifold, clung to each other so devotedly. Within sight of the spot where rests this pioneer of steam-enginery in America, the forces of steam are at work in a hundred forms, converting the simple hamlet of yore into a busy centre of industry. Almost within a stone's throw of his resting place, long trains of cars dash by with the speed of the wind, propelled by the same mighty power; bringing over the narrow track the wealth of the remotest parts of the globe. But, curiously enough, the most important use of the subtle power in that neighborhood, is the same for which his rude "fire-

* *New Jersey Journal*, July 5, 1780.

†The notice of her death, in the *Newark Centinel*, of April 26, 1808, reads: "Died at Belleville on Sunday morning last, a few minutes before ten o'clock, Mrs. Elizabeth Hornblower, wife of Josiah Hornblower, Esq., in the 75th year of her age."

‡ Alden's Epitaphs, V, 235.

engine " was brought over, one hundred and thirty years ago—namely, to pump water; only, instead of lifting "80 hogs-heads per minute," to pour it into the river, these modern, mighty engines, embodying all the latest improvements in science, are ceaselessly, noiselessly hoisting twice that quantity out of the river, to pour it in refreshing, life-giving streams through the two chief cities of New Jersey—cities of whose future greatness even the far-seeing young engineer could scarcely have dreamed—cities which would not, could not have existed to-day, were it not for the wonderful power which he first harnessed to the car of progress and civilization in America.

APPENDIX I.

NOTE A, PAGE 6.—*Hornblower's Compound Engine, and his Controversy with Boulton and Watt.*

The aim of the double-cylinder or compound engine of Jonathan Hornblower, Jr., the nephew of Josiah Hornblower, was to utilize the expansive power of steam, whereby the same steam could be used twice or more. The engine had two cylinders, one double the size of the other. The steam was let into both, beneath the pistons, and was then cut off; from the smaller cylinder it had free vent by a pipe into the larger, above the piston-head; as it escaped from the smaller cylinder it left a vacuum behind, causing the piston to descend, and the expanded steam in the second cylinder pressed down upon the larger piston-head, giving an additional impetus to its descent, while the steam beneath it was discharged through a pipe running under the first cylinder (thus helping to keep it warm), into an outside vessel, where it was condensed. It was claimed that the power of this engine was to Watt's single-cylinder engine as 3 is to 2; in other words, that a gain of 50 per cent. was effected.* Watt was greatly troubled by the first rumors that came to him concerning this invention, fearing that some entirely new power had been discovered, instead of a new application of a power already known. He then claimed that he had conceived the idea of using the expansive power of steam as early as 1767,† but he had not been able to make a successful application of it, and there is really no reason to doubt that Mr. Hornblower's was an independent discovery, and that he was the first to put the idea into practical form. When it is remembered that he was not only the son of an engineer, but that his grandfather had erected a steam-engine at least ten years before James Watt saw the light at Greenock, it is only reasonable to suppose that he was quite as capable of arriving at original results in his special field, as was the humble watch and instrument maker. It is claimed‡ for Jonathan that he "took up the subject of his engine early in 1776, if not before, and continued it until he made a large working model whose cylin-

* Historical Review of Improvements in the Steam-Engine in the XVIIIth Century. by Jabez Carter Hornblower, printed in the first and second editions of O. Gregory's *Mechanics*, Vol. II, 358-390, and reprinted for Mr. Justice Bradley, Washington, 1880. 32-5; *Lives of Boulton and Watt*, 304; *Thurston's History of the Steam Engine*, 135-7.

† *Lives of Boulton and Watt*, 304.

‡ By Jabez Carter Hornblower, ut supra. p. 36 of reprint.

ders were 11 and 14 inches in diameter," and then sent a description with drawings to the editor of the *Encyclopedia Britannica*, who promised that the account should appear with the "marks of peculiar approbation" of Dr. Robison, who was preparing the article on the steam-engine for the next edition of the work. But Dr. Robison was a warm friend of Watt, and indeed was the first to direct the attention of the young inventor to the subject of steam—in 1759,* forty years after Joseph Hornblower had set up his first engine. The Doctor not unnaturally saw everything relating to engines as a partisan of Watt, and in his notice of Hornblower's compound engine directed attention chiefly to various minor improvements made by Mr. Hornblower, quite overlooking the real importance of his application of the expansive power of steam, and declared that the engine was inferior to that of his friend, Watt. This provoked Mr. Hornblower to a severe rejoinder, which lost him any chance thereafter of getting justice at the hands of Dr. Robison or the *Encyclopedia* for which he wrote.† Here is a new illustration of the power of the press to make or mar an inventor's fortunes! Although Watt had taken out the patent for his improved engine in 1769 and another in 1774, he was still (in 1781) in the experimental stages of his invention, largely owing to the mechanical difficulties to be overcome, and the lack of skilled workmen,‡ which also proved a stumbling-block in the way of the speedy success of Hornblower's engine. From the date of Newcomen's first practical application of the power of steam, the English engineers had been trying to remedy the obvious defects of that machine, so that it was not strange that several persons should come close upon the same idea at the same time. Thus, Watt's claim to the invention of the separate condenser has been disputed in behalf of two or three persons, the fact doubtless being that many besides himself had had their thoughts inclined in the same direction. But he was the first to solve the problem, and undoubtedly is entitled to the credit of the invention. As he himself said in one of his despondent moods, and they were many while he feared the success of the Hornblower engine: "It looks as if Nature had taken an aversion to monopolies, and put the same thing into several people's heads at once, to prevent them."§ When the real character of the new invention became known, Watt evidently did not grasp its true significance at once, and hardly knew upon what grounds to attack it. He was greatly worried and mortified to find, too, that the mine-owners favored the Hornblowers, not so much because of friendship, as in the hope of breaking up the monopoly of the powerful Soho firm. "The Horners continue bragging of what they are to do," he writes peevishly, "and I hear the country in general takes part with

* *Lives of Boulton and Watt*, 118.

† *Encyclopedia Britannica*, 3d ed., Art. Steam-Engines, No. 70: Jabez Carter Hornblower, *ut supra*, reprint, 36-7.

‡ *Lives of Boulton and Watt*, 311-13.

§ *Ib.*, 300.

them.”* And again: “All the bells in Cornwall would be rung at our overthrow.”† Boulton and Watt first claimed that the Hornblower patent infringed on that of Watt in respect to the use of steam to press down the piston of the second cylinder. “As to the scheme of the Hornblowers, they shall sooner press me down into the earth than they shall press down a piston with steam,” wrote Boulton defiantly to his partner.‡ In the fourth specification of his patent of 1769 Watt set out this claim: “I intend in many cases to employ the expansive force of steam to press on the pistons, or whatever may be used instead of them, in the same manner as the pressure of the atmosphere is now employed in the common fire-engine.”§ It was fifteen years later, or three years after the Hornblower patent was taken out, ere Watt perfected his double-acting engine, in which the steam acted on the upper as well as the lower side of the piston-head, in a single cylinder. But the specification quoted hardly indicates any such engine as Mr. Hornblower designed. In “An Address to the Lords, Adventurers, and Others, concern’d in the Mines of Cornwall,” issued from Penryn (Cornwall), May 1, 1788, by Jonathan Hornblower, Jr., and John Winwood (a wealthy capitalist who was backing up the former), they say:

“The fourth Article of Mr. Watt’s Specification relating to Steam on the Piston, seems to be the principal Matter of Dispute; for which Reason it is what we wish most to consider: And without dwelling on the vague and uncertain Manner in which it is worded, we pass on to observe, that so far from this Invention being new, it was made public at least fifty Years since, and in order to prove this, a Description of it, illustrated with a Copper-Plate, may be seen at This day, where the expansive Power of Steam is employed to impel the Piston, on a Vacuum which is made in the upper Part of the Cylinder; and where the Piston is connected to an Iron Rod that moves thro’ the Cylinder-Lid. Which plainly demonstrates, that the Power of Steam employed to force into a Vacuum, intercepted by a Piston, is of ancient Date. * * * That we did not even take the Hint of our Improvement from Messrs. Boulton and Watt, we have Evidence sufficient, who saw our Model at Work in 1776, which was long before we heard of those Gentlemen or their Patent.”

The Soho firm ultimately made their fight mainly or altogether on the principle of the separate condenser, claiming that Hornblower’s device for discharging the steam from the larger cylinder was an infringement on Watt’s great patent. Mr. Hornblower admitted the value of this idea, but denied having adopted it, saying, in the “Address” quoted from above: “The Application of this Improvement to our Engine would be useless; nor have we adopted it, for we do admit the condensing Water into the

* *Lives of Boulton and Watt*, 299, 303.

† *Ib.*, 303, 320.

‡ *Ib.*, 301.

§ *Thurston’s Hist. Steam-Engine*, 100.

Cylinder. Which is sufficient of itself to evince, that the Principles of the two Machines must be, and are very different." However, from the descriptions and views of the engine extant, there evidently was attached some sort of a condensing apparatus outside of the cylinders,* and although it was by no means an essential feature of the engine, it gave Boulton and Watt an advantage in attacking Hornblower's design. The counsel for Hornblower and his associates boldly questioned the legality and the sufficiency of Watt's patent, but in this they failed. On the other hand, it does not appear that Mr. Hornblower's claim to the invention of the double-cylinder engine was successfully disputed in the courts. But Boulton and Watt commanded a larger capital, supplied means for operating many mines and other manufacturing enterprises, enjoyed the vast prestige of court favor,† and in various ways managed to intrench themselves so firmly that when Mr. Hornblower's patent expired, in 1795, it was out of the question for him to seek a renewal of it; and when Watt's second patent (extended by Parliament in 1775 for twenty-five years from its date of issue, 1774, against the strenuous opposition of the mine-owners, whose cause was warmly espoused by Edmund Burke ‡) ran out, in 1799, the Hornblowers were no longer in a position to compete in the manufacture of engines with their great and wealthy rivals. As already stated, the principle of the Hornblower engine is to-day most effectively applied, to enable steamships to make swift and extended ocean voyages, which they could not accomplish without it.

Mr. Justice Bradley, who has given the subject much attention for many years, says in a letter to the writer: "I have long been of the opinion that injustice was done to the Hornblowers on the merits of the controversy. I am so satisfied on the subject in reading the Hornblowers' letters, and in many other ways, that I have a moral certainty of it." He gives these references to the reports of the litigation: Boulton & Watt vs. Bull, 2 H. Blackstone, 463; Hornblower & Maberly vs. Boulton & Watt, 8 Term Reports, 95; Boulton vs. Bull, 3 Ves., 140; remarks by counsel, *arguendo*, in the argument on Neilson's Patent, in Webster's Patent Cases.

NOTE B, PAGE 14.—*The Snow Irene, and Captain Garrison.*

Nicholas Garrison was born on Staten Island in 1701, went to sea in his thirteenth year, and at the age of twenty-one took command of a New York vessel in the West India trade. While thus engaged he met Bishop Spangenberg, in October, 1736, who sailed in his vessel for New York. When nearing port, "a severe storm arose, and fear seized all the crew

* Illustrations of the engine are given in the article by Jabez Carter Hornblower, *ut supra*, reprint; and in Thurston's Hist. Steam-Engine. 136.

† Lives of Boulton and Watt. 3.

‡ *Ib.*, 219.

except the pious Moravian, who remained calm and engaged in fervent prayer. He cheered the dismayed sailors, having confidence that the Lord would save them. In a few hours they safely entered the desired harbor.”* This incident produced a marked effect on Garrison, and ultimately led to his joining the “United Brethren.” In 1738 he met Count Zinzendorf at St. Thomas, and entertained him at his home on Staten Island in 1743. He was several times taken prisoner by Spanish or French cruisers, suffering much hardship. Returning to Staten Island in 1748, on September 8 of that year he sailed in command of the *Snow Irene*, on her first voyage, she having been built by the Brethren “for the more easy conveyance of their colonists to the American settlements.”† “In 1749 she carried a large colony from London, and conveyed some Greenlanders back to their own country. From that time on she performed four voyages almost every year between London and New York, being a good sailor and easily freighted.”‡ “In 1753 she sailed with forty, and in 1754 twice with upward of ninety Brethren and Sisters for the colonies and missions in America.”§ She met with a strangely tragic fate for a vessel employed on so peaceful a mission. “In November, 1757, on a voyage from New York to London, she was taken by a French privateer, and sent for Cape Breton; but, on the 12th of January, 1758, she was cast away. The crew took to their boat, but were overset by the waves. However, they all escaped to shore, though with the utmost hazard of their lives. Being thrown upon a desert coast, they were obliged to work their way, with great toil and peril, through snow and ice, for seventy miles, till they came to Louisburgh. The prisoners, among whom were some Brethren, were carried to Brest. Having endured much hardship and distress, both at sea and on land, among a number of other prisoners, they at last were exchanged.”|| Captain Garrison had left the *Irene* in 1755, in favor of his mate, Christian Jacobson, and had gone to Germany in the interest of the Brethren, in whose behalf he subsequently visited Holland, and Dutch Guiana, whence he returned to Germany, settling at Neisse, in Prussian Silesia. In 1763 he came back to America, making his home thenceforward at Bethlehem, Penn., where he died in 1781.**

It might be added that the nautical dictionaries define a “snow” to be a “brig-rigged vessel, with a driver (or try-sail) bent on rings to a supplementary mast just abaft the main-mast.” It resembles a bark.

* *The Earliest Churches of New York and its Vicinity*, by Gabriel P. Disosway. A. M., New York, 1865, 207.

† *The Ancient and Modern History of the Brethren*, by David Cranz, translated by Benjamin La Trobe, London, 1780, 390.

‡ *Ib.*, 478.

§ *Ib.*, 416.

|| *Ib.*, 478.

** *Ib.*, 478, 485; *Annals of Staten Island*, by J. J. Clute, New York, 1877, 301-6.

NOTE C, PAGE 53.—*The name “Belleville” adopted.*

The following document, found among the papers of Josiah Hornblower, indicates his prominence in the little community, and is of some local interest besides:

“At a general meeting of the inhabitants of Second River and its vicinity on Saturday the 24th June inst., at the house of John Ryerson, (agreeably to advertisement, for the purpose of giving a name to the said place,

“JOSIAH HORNBLOWER in the chair—

“It was *Resolved*, That the name Second River is improper and inconsistent, as it originally applied to the brook and not to the village, and therefore that some name more applicable be now chosen.

“2. *Resolved*, That the whole district commonly known and called by the name of Second River, which generally includes the villages of Povershon, Newtown, &c., be hereafter known only by the name of *Washington*.

“By order of the meeting.

JOSEPH HORNBLOWER, Clerk.”

On the other side of the same sheet is the following:

“We, the subscribers, inhabitants and freeholders living near the bridge at the village commonly called Second River, but now called Washington, comprehending the district of Newtown, Povershon, &c., apprehending that many inconveniencies would arise from the want of a name to distinguish the said village, when particularly alluded to, do therefore

“*Resolve*, To distinguish the said village (when alluded to separately from the district comprehending Washington) by the name of *Belleville*.

“Monday, June 26, 1797.” (Signed by Josiah Hornblower and 38 others, including William, James and Jonathan Hornblower.)

APPENDIX II.

GENEALOGY OF THE HORNBLOWER FAMILY.*

JOSEPH HORNBLOWER, b. 1696; d. 1762; m. Rebecca ——. Some mention has been made of this early engineer, in the preceding pages. Additional particulars of his career may be found in "Yesterday and To-day," by his talented great-grandson, Cyrus Redding. Mr. Hornblower's seal was a representation of the queer, high, peak-roofed engine-house of his day, with one arm of the engine's walking-beam projecting from one end. He is said to have had twelve children. The following is a list so far as ascertained:

- i. Jonathan, b. 1717; d. Dec. 7, 1780. An eminent engineer, who established himself in Cornwall about 1745.
 - ii. Josiah, d. in infancy.
 - iii. Joseph, d. 1781. He was also an engineer. Issue: six children.
 - iv. Josiah, b. Feb. 23, 1729; d. Jan. 21, 1809, at Belleville.
 - v. Joanna, d. 1757.
- Mr. Hornblower married a second time. Children:
- vi. Joshua, d. unm.
 - vii. Jabez, who had three children; all died young.
 - viii. James, d. unm.
 - ix. Isaac, b. 1744; d. 1818.

Jonathan m. Ann, dau. of Thomas Carter, a lawyer of some eminence, of Brosely in Shropshire, England, and had the following children, to whom he gave names, as his father had done, beginning with J:

- i. Jabez Carter, b. May 21, 1744; d. July, 1814. An eminent engineer, of whom a sketch is given by Judge Bradley, introductory to the reprint of his article on steam-engines, referred to above.
- ii. Jethro, b. July 16, 1746; d. Jan. 1, 1820.
- iii. Joanna, b. Nov. 24, 1747; d. Aug., 1813; m. the Rev. Robert Redding (who d. 1807), and was the mother of Cyrus Redding, editor (with Thomas Campbell) of the *New Monthly Magazine*, and author of various works.
- iv. Jesse, b. July 3, 1749; d. Dec. 29, 1822.
- v. Jemima, b. Jan., 1751; d. 1754.
- vi. Jonathan, Jr., b. July 5, 1753; d. Feb., 1815. The eminent engineer whose work is noticed in the preceding pages.

* For the following lists of the children of Joseph, of Jonathan and of Josiah Hornblower, the writer is indebted to Mr. Justice Bradley. The data as to the subsequent generations have been obtained from various sources.

- VII. Joseph, b. Feb. 17, 1755; d. —.
- VIII. Jemina, b. March 5, 1757; d. Feb., 1799; m. — Trestrail.
- IX. Julia, b. Dec. 26, 1758; d. Aug., 1800. She m. the Rev. John Moyle, and had a dau. Julianna, who m. her cousin, Cyrus Redding, mentioned above.
- X. Jecholia, b. Oct. 2, 1760; d. Nov., 1843.
- XI. Jedida, b. Oct. 4, 1764; d. Sept., 1812; m. James Milford.
- XII. Jerusha, b. 1767; d. May, 1823.
- XIII. Josiah, b. 1769; d. Sept., 1795.

Descendants of Josiah Hornblower.

JOSIAH HORNBLOWER, b. Feb. 23, 1729; d. Jan. 21, 1809; m. 1755, Elizabeth, dau. of Col. William Kingsland and Margaretta Coerten,* of New Barbadoes Neck, Bergen County, N. J. Children:

- I. Joseph, b. 1756; studied medicine in New Brunswick, N. J., with Dr. Lewis Dunham; d. 1777, without issue.
- II. Margaretta, b. 1758; d. Dec. 29, 1825; m. James H. Kip, merchant, of New York. Children:
 - 1. Henry, d. æt. two days.
 - 2. Eliza, b. March, 1781; d. Nov. 17, 1805; m. 1800, John Arent Schuyler, of New Barbadoes Neck, b. April 12, 1779, son of Arent J., son of Col. John Schuyler. He m. 2d, Catharine,

* Some account has been given above of the maternal ancestry of Mrs. Josiah Hornblower. Her grandmother, Elizabeth De Riemer, was the daughter of Huybert De Riemer, who was the third child of Isaac De Riemer and Elizabeth Grevenraet, whose children were:

- i. Margaret, m. Cornelis Steenwyck, Mayor of New York, 1682-3, and one of the wealthiest and most influential merchants of the city. He died in 1684. She m. 2d, Dominie Henricus Selyns, pastor of the N. Y. Dutch Church. She survived both husbands, dying in 1711, leaving a large estate to her nephews and nieces, and making Henricus Coerten, who m. her niece, Elizabeth De Riemer, one of her executors.
- ii. Pieter, b. 1643; had a son, Isaac. Mayor of New York in 1700, and Sheriff in 1701-2.
- iii. Huybert, joined the Dutch Church, N. Y., 1671; d. at Meuse, France; was a naval surgeon; m. Catharine —. Issue: 1. Isaac; 2. Elizabeth.
- iv. Machtelt, joined the Dutch Church, N. Y., 1682; m. Nicholas Gouverneur, of France, a prominent merchant of New York, though spending most of his time in France or Holland; he was the founder of the Gouverneur family of New York. Issue: 1. Abraham; 2. Isaac. Abraham m. Mary Milborne, wid. of Jacob Milborne, and dau. of Jacob Leisler, the two unfortunate leaders of Leisler's usurpation in New York in 1689. Isaac was the father of the Gouverneurs of Newark, N. J.—Nicholas, Samuel and Isaac.

Elizabeth (Lysbeth) Grevenraet was one of the most notable women of her time in New York. She m. 2d, Elbert Elbertsen; and 3d, 1659, Dominie Samuel Drisius, pastor of the Dutch Church; she d. 1687.—*Notes of Judge Bradley*; N. Y. *Gen. & Biog. Rec.*, April, 1876, 60-3; do., January, 1878, 38; *Valentine's N. Y. Manual*, 1855, 538; do., 1862, 770; do., 1864, 579.

dau. of Robert Van Rennselaer, and d. Oct. 12, 1817. Children of John A. Schuyler and Eliza Kip:

- i. Arent Henry, b. Nov. 25, 1801; d. May 19, 1878; m. April 24, 1828, Mary Caroline Kingsland, dau. of Henry W. Kingsland, b. June 21, 1804; she is still living. Their children were: I. Henry Kingsland, b. March 5, 1829; II. John Arent, b. Feb. 19, 1831; d. June 15, 1870; III. Smith Anderson, b. Nov. 18, 1832; d. July 26, 1870; IV. Edwin Nesbitt, b. June 15, 1834; d. Sept. 13, 1835; V. Harriet Anderson, b. Aug. 29, 1836; d. Feb. 17, 1882; VI. Sarah Jauncey, b. June 22, 1838; VII. Arent Henry, b. Aug. 8, 1840; d. Sept. 20, 1863; VIII. Richards Kingsland, b. June 24, 1842; IX. Mary Caroline, b. Feb. 16, 1845; d. Aug. 9, 1845; X. Catherine Gertrude, b. Aug. 17, 1846; d. Sept. 16, 1866.
- ii. Harriet Ann, b. Jan. 31, 1803; is still living; m. Dec. 19, 1822, Smith W. Anderson, New York, b. Oct. 24, 1794; d. Nov. 15, 1851. Children: I. John Schuyler, b. Sept. 21, 1823; II. James, b. Dec. 8, 1825; III. Helen Margaretta, b. Oct. 11, 1827; IV. Harriet Schuyler, b. Nov. 8, 1829; d. Nov. 19, 1873; V. Hannah Matilda, b. Jan. 15, 1832; VI. Catharine Schuyler, b. Feb. 12, 1834; VII. Smith Weeks, b. May 30, 1838; VIII. Angelina Schuyler, b. May 5, 1840. There are thirteen grandchildren living, of Harriet Ann and Smith W. Anderson.
3. Caroline, d. young.
4. Henry, d. without issue.
5. Josiah, d. without issue.
6. Harriet Jones, b. Jan. 1, 1788; d. Aug. 28, 1866; m. May 12, 1809, Benjamin Ludlow Day, of Chatham, son of Col. Israel Day and Elizabeth, dau. of Col. Cornelius Ludlow, of Long Hill, Morris County, N. J.; he was b. March 22, 1787; d. March 13, 1822. Children:
 - i. Margaretta, b. April 16, 1810; d. Sept. 24, 1863; m. William Henry Field.
 - ii. Israel Ludlow, b. April 14, 1814; d. Nov. 22, 1836.
 - iii. Eliza Schuyler, b. Sept. 18, 1816; d. June 22, 1858; m. Jan. 10, 1839, Geo. W. Campbell, of Millburn, N. J., b. Jan. 10, 1814. Children: I. Euphemia b. Oct. 29, 1839; m. (by the Rev. Mr. Williams, of Orange, N. J.) Sept. 24, 1861, to Samuel G. Borrowe, of N. Y. (Issue: 1. Effie Beekman, b. Jan. 27, 1863; 2. Hallet Alsop, b. April 1, 1864; 3. Jeannie Campbell, b. July 2, 1867; 4. Beekman Kip, b.

- Sept. 26, 1869.) II. Catharine, b. May 20, 1841; III. Samuel, b. Jan. 8, 1843; m. Frances Mott, grand-dau. of Dr. Valentine Mott, of N. Y. city. (Issue: 1. Samuel Alexander; 2. Eliza Day; 3. Fannie Mott; 4. George W.) IV. Harriet Kip, b. Sept. 10, 1845; V. Ludlow Day, b. Nov. 15, 1846; d. Oct., 1876; VI. George W., b. March 6, 1848; m. Anna, dau. of Gen. William N. Grier, of the U. S. Army. (Issue: 1. Eliza Schuyler, b. Sept. 12, 1873; 2. Grier, b. Aug. 31, 1875; 3. Duyckinck, b. Nov. 27, 1877; 4. George Wright, b. Jan. 25, 1881.) VII. Moses T., b. March 26, 1849; VIII. Eliza Schuyler, b. Dec. 1, 1851; IX. Helen, b. Feb. 3, 1857. (George W. Campbell, Sr., m. 2d, Oct. 30, 1860, Virginia Watson, and had issue: X. Jane Allen, b. June 25, 1862; XI. Allen Watson, b. Jan. 11, 1867.)
- iv. Helen Kip, b. Oct. 10, 1818; d. Feb. 11, 1850.
7. Charles, d. without issue.
8. Helen, b. June 15, 1798; d. Aug., 1826; m. 1820, Abel T. Anderson, a lawyer of New York. Children:
- i. James Kip, b. June 18, 1823; dec.; a civil engineer, of New York; m. Harriet B., dau. of Col. Dall, of Maryland.
- ii. Eliza, b. 1821; m. Bishop Kerfoot, of Pittsburgh, Pa., whom she survives.
9. William, d. without issue.
10. James, d. without issue.
- III. William, b. 1759; d. 1765, of malignant sore throat or scarlet fever.
- IV. James, b. 1761; d. March 31, 1843; m. April 5, 1796, Hannah Crane, who d. Feb. 7, 1823. Children:
1. William, b. July 13, 1797; d. Sept. 13, 1801.
2. Eliza Christiana, b. Sept. 25, 1799; d. Oct. 17, 1859; m. July 27, 1820, William Stephens, of Belleville, who d. Dec. 27, 1872. Children:
- i. Hannah Elizabeth, b. June 9, 1821; d. Jan. 9, 1835.
- ii. William Hornblower, b. July 14, 1823; now post-master at Belleville. He m. Sept. 29, 1853, Mary Ann, dau. of John Walsh, of Belleville; she was b. Aug. 27, 1830. Issue: I. Robert Law, b. July 9, 1854; d. Nov. 28, 1855; II. William Alfred, b. Oct. 24, 1855; III. Albert Henry, b. Jan. 28, 1858; IV. Joseph Hornblower, b. Jan. 12, 1861.
- iii. Rebecca Williamson, b. May 7, 1828; d. Nov. 27, 1836.
- iv. Maria Louisa, b. July 12, 1839; d. Aug. 16, 1839.
- v. Sarah Ann, b. July 26, 1842; d. Aug. 9, 1843.

- V. Rebecca, b. 1762. } Both died of malignant sore throat or scarlet
fever, with their brother William (III), in
VI. Elizabeth, b. 1764. } 1765.
- VII. William, b. 1765; d. 1799, without issue; m. his cousin, Margaret Kingsland, b. March 26, 1773, dau. of Edmund William Kingsland; she m. 2d, Charles Trinder.
- VIII. Josiah, b. May 23, 1767; d. May 6, 1848. "He studied medicine with Dr. Thomas Steele, of Belleville, and began practice at Bergen in 1789, his field of practice extending over all of what is now Hudson County, old Hackensack Township in Bergen County, and frequently crossing the Kill van Kull to the northerly end of Staten Island; from 1789 to 1807 he was one of but two or three physicians resident within that district; in the war of 1812, he was appointed a surgeon, and assigned to duty at the old Arsenal on the Heights. He continued in active service till 1844."—*History of Medicine in New Jersey, and of its Medical Men*, by Stephen Wickes, A.M., M.D., Newark, 1879, 286-7. Dr. Hornblower m. Dec. 4, 1791, Annetje (Anna) Merselis (dau. of Merselis Merselis and Elisabet Vliereboom), who was b. Nov. 25, 1773; d. Dec. 21, 1832; m. by the Rev. Mr. Lynn, of N. Y. Children:
1. Josiah, b. Aug. 7, 1792; d. Jan. 23, 1824; was a physician at Bergen; m. Oct. 15, 1812 (by the Rev. John Cornelison), Hannah Town, b. Nov. 22, 1791; she survived him and m. 2d, Benjamin Stagg, b. Feb. 11, 1787, son of John Stagg, b. in New York, 1732.—*N. Y. Gen. and Biog. Rec.*, April, 1878. Children of Josiah (3d) and Hannah Town:
 - i. Anna Elizabeth, b. Aug. 21, 1813; m. Dr. Edwin Webb, of Hempstead, L. I.
 - ii. Caroline Town, b. March 18, 1815; m. John Stagg, son of Benjamin Stagg (her mother's 2d husband).
 - iii. Josiah Henry, b. Jan. 3, 1817; d. March 29, 1879; m. June 23, 1846, Maria, dau. of Eli Morgan, of Bethel, Conn.; she was b. Sept. 2, 1819. Issue: I. Anna Stagg, b. Jan. 3, 1848; m. Nov. 30, 1871, George B. Benjamin, Jr., of Danbury, Conn., and had two children: 1. Anna, b. April 10, 1874; 2. George, b. Sept. 7, 1875; both dec.
 - iv. John Town, b. Oct. 10, 1819; d. Nov. 5, 1833.
 2. Elizabeth, b. Dec. 28, 1793; d. May 28, 1844; m. Oct. 15, 1816, Dr. Thomas Brown Gautier, of Bergen, b. July 25, 1797; d. at Jersey City, April 11, 1850. Children:
 - i. Mary Brown, b. July 26, 1817; d. April 5, 1850; m. April, 1839, David Betts Wakeman, and had issue: I. Elizabeth Gautier; II. Edmund D. Barry; III. Anna; IV. Jabez J.; V. Sarah; VI. Mary Caroline.

HORNBLOWER GENEALOGY.

- ii. Josiah Hornblower, b. Nov. 12, 1818; practiced medicine for some years in Jersey City, but subsequently engaged in manufacturing; m. Dec. 10, 1844, Mary Louisa, dau. of Dudley S. Gregory, and had issue: I. Dudley Gregory; II. Thomas Brown; III. Maria Louisa; IV. Josiah Hornblower; V. Anna Elizabeth; VI. Charles Edward; VII. Clara Sutton.
- iii. Thomas, b. July 16, 1820; m. May 16, 1855, Anna Robinson, and had issue; I. Thomas.
- iv. Anna Elizabeth, b. March 17, 1822; unm.
- v. Francis Pantar, b. April 18, 1824; m. Dec. 20, 1860, Eliza Newkirk. Issue: I. Mary Elizabeth; II. Annie Louisa; III. Alice Maud; IV. Frank Henry.
- vi. William Henry, b. Jan. 1, 1826.
- vii. Eugene, b. March, 1828; d. Dec. 10, 1848.
- viii. James Robert, b. Nov. 25, 1830.
- 3. Christiana, b. Nov. 10, 1795; d. Sept. 2, 1876; m. Nov. 13, 1819, Dr. Gasherie De Witt, of Bergen. Issue:
 - i. Anna Maria, b. Aug. 29, 1820; d. 1878; m. Cyrus W. Hartwick. Issue: I. Gasherie De Witt.
 - ii. Gasherie, b. June 10, 1822; d. Nov. 19, 1874, at Geneva, Switzerland. He was a public-spirited citizen of Belleville, was a member of the Legislature, and in 1873 was an Honorary U. S. Commissioner to the International Exposition at Vienna. He occupied at Belleville a part of the old Hornblower estate, calling his place "Truro," after a town in Cornwall where Joseph Hornblower lived at one time. He m. Oct. 15, 1849, Jennie L., eldest dau. of the Rev. John Dowling, D.D., of N. Y. city; she was b. June 5, 1830. Issue: I. Ida Christiana, now Instructor in Vassar College; II. Helen Maria, who graduated from the Woman's Medical College of N. Y., May 22, 1879; m. May 22, 1880, Dr. J. G. Justin, Professor in Syracuse University. (Children: 1. Joel De Witt; 2. Jennie Elizabeth.) III. Lilia Dowling, artist; IV. Jennie Josephine; V. Gasherie, merchant; VI. Alice Cornelia; VII. Julia Dyer; VIII. John Dowling; IX. Elizabeth Sleeper.
 - iii. Josiah Hornblower; lives at Orange, N. J.
 - iv. Jane Zabriskie, unm., living at Jersey City.
 - v. Joseph Coerten Hornblower, d. unm.
 - vi. Elizabeth Gasherie, d. unm.

- vii. William Hornblower, d. unm.
- viii. Helen Kingsland, d. unm.
- ix. Louis Andries, d. unm.
- x. Mary Gasherie, d. unm.
- xi. James Henry, d. unm.

Most of the above died in infancy, or very young.

4. Henry Merselis, b. Nov. 3, 1797; d. Aug. 8, 1814, without issue.
5. James Kip, b. Sept. 11, 1806; d. June 21, 1828, without issue.
6. William J. V. H., b. Oct. 22, 1809; d. April 3, 1881; studied medicine, and was graduated from College Physicians and Surgeons, N. Y. City, 1831; m. Oct. 14, 1835, Sarah, youngest dau. of the Rev. James V. C. Romeyn, of Hackensack, N. J.; she was b. Feb. 22, 1814; d. May 8, 1874. Dr. Hornblower dropped the middle initials of his name and called himself William, simply. Children:
 - i. Josiah, b. Sept. 15, 1836; graduated from University Medical College, N. Y. City, 1860; a practicing physician in Jersey City; m. Oct. 14, 1860, Ninetta, eldest dau. of Captain William Pennington, of Mays Landing, N. J., the Rev. J. O. Winner performing the ceremony. Issue: I. Lizzie, b. 1861; II. Josiah, b. 1864; studying medicine; III. Ninetta, b. 1870; IV. Francis Gautier, b. 1874; V. William, b. 1876.
 - ii. Elizabeth Gautier, b. April 1, 1838; m. June 20, 1879, E. T. Rogers.
 - iii. Harriet Stafford, b. Feb. 23, 1842; d. March 1, 1850.
 - iv. Theodore Romeyn, b. June 9, 1845; graduated from College Physicians and Surgeons, N. Y. City, 1869; m. Nov. 11, 1870, Emma T. Sherwood, who d. 1871. Issue: I. William, who d. aged two years. He m. 2d, Nov. 8, 1874, Julia A. Nixon.
 - v. William Ballard, b. Jan. 24, 1847; d. Oct. 19, 1873.
 - vi. John W., b. Aug. 22, 1849; m. June 18, 1882, Mary Griffin.
 - vii. Gasherie De Witt, b. March 31, 1852; d. Dec. 9, 1864.
7. Jane, b. Oct. 2, 1811; d. May 29, 1843; m. Dr. Philip Zabriskie, of Bergen.
- IX. Jonathan, b. July 26, 1769; d. Oct. 23, 1809, without issue. He lived for some years with his uncle, James H. Kip, in New York, doubtless being employed in his mercantile business; as early as 1793 he was engaged with his brother William in carrying on the store at Second River, the firm being William & J. Hornblower. About this time he, for some reason not now understood, changed

his name to John, and was thereafter known by that name, although occasionally called Jonathan. In his father's will he is called John.

- X. Henry Coerten, b. 1771; d. Sept. 8, 1795, at Troy, N. Y., of yellow fever, contracted at New York; he was a sailor.
- XI. Christiana, b. 1775; d. Nov., 1794, from the effects of a contusion on her head, received in raising herself suddenly against a mantel-piece. She is said to have been a most lovely and amiable girl.
- XII. Joseph Coerten,* b. May 6, 1777; d. June 11, 1864; studied law in 1798 with David B. Ogden, of Newark, and succeeded to his business when Mr. Ogden removed to New York in 1800, although Mr. Hornblower was not admitted to the Bar until 1803. He m. April 9, 1803, Mary Burnet, dau. of Dr. William Burnet, Jun., of Belleville; she d. Dec. 18, 1836; he m. 2d, March 9, 1840, Mary Ann, dau. of Major John Kinney, of Newark, N. J. Was Chief-Justice of New Jersey 1832-46. See "Address on the Life and Character of the Hon. Joseph C. Hornblower, LL.D.," by the Hon. Richard S. Field, before the New Jersey Historical Society, Jan. 16, 1865, Proc. Soc., X, 27. His children, all by his first wife, were:
 1. Joanna Margaretta, b. Dec. 29, 1804; d. April 29, 1874; m. June 27, 1827, Thomas Bell, of Philadelphia, merchant, who d. Aug. 29, 1867. Issue:
 - i. Mary, b. April, 1828; d. 1835.
 - ii. Joseph Coerten, b. Nov., 1829; d. April 14, 1863, unm.; he settled in Texas before the war, and either enlisted in or was impressed into a Texas regiment in the rebel army, and was killed in the service.
 - iii. Bertha, b. Aug. 14, 1831; m. 1852, John Chapron, a lawyer of Philadelphia, who d. Nov. 22, 1866. Issue: I. Bertha, b. Jan. 15, 1854; II. John Marie, b. Aug. 15, 1856; III. Francis Stephen, b. May 3, 1861.
 - iv. Edward Gray, b. June 17, 1833; d. Dec. 8, 1878. unm.; was 1st Lieut. in 5th N. Y. Vols., Dur-yea's Zouaves, in the War of the Rebellion.
 - v. Robert Chalmers, b. 1835; d. 1837.
 2. Eliza Schuyler, b. Feb. 6, 1806; d. Aug. 7, 1862; m. the Rev. Mortimer Talbot, Chaplain U. S. Navy (now dec.). Issue:
 - i. Joanna, m. Dr. Charles Eversfield, Surgeon U. S. Navy (now dec.).

* Joseph does not seem to have adopted the name "Coerten" until after his brother Henry's death. It will be noticed that as clerk of the Belleville meeting, in 1797, he did not use any middle name. (See Appendix I, Note C, *ante*.)

3. Emily, b. Jan. 6, 1808; d. June 21, 1874; m. April 11, 1826, Col. Alexander McWhorter Cumming, of Newark, afterward of Princeton, N. J.; Major First New Jersey Cavalry in the War of the Rebellion; he d. July 16, 1879. Issue:
 - i. Mary, b. June, 1828; unm.
 - ii. Sarah, b. 1829; d. Dec., 1876, unm.
 - iii. Richard Stockton, b. 1833; m. Aug., 1865, Emily, dau. of Rev. Heman Blodgett. Issue: I. Katharine, b. 1867; II. Alexander M., b. 1872; III. Richard Stockton, b. 1873.
 - iv. Emily, b. 1835; m. July 15, 1858, Rev. Augustus Brodhead, D.D., formerly missionary to India, now pastor 1st Pres. Church, Bridgeton, N. J. Issue: I. Claude, b. Jan., 1861; graduated from Princeton College, 1883; II. Wilfred, b. Aug. 1864.
 - v. Alexander McWhorter, b. 1837; m. 1869, Harriette, dau. of Dr. Moses Woodruff, of Elizabeth, N. J.
 - vi. Rosalie, b. June 25, 1841; m. April 11, 1866, Leavitt Howe, of Princeton, N. J. Issue: I. Emily, b. May 1868; II. Leavitt, b. Dec., 1869; III. Fisher, b. Nov., 1871; IV. Helen, b. Dec., 1875.
 - vii. John Noble, b. 1848; m. April, 1883, Mary C., dau. of Wm. Annin, lawyer, who m. Miss Edwards, a descendant of Jonathan Edwards.
4. Harriette Burnet, b. Sept. 2, 1810; d. April 5, 1868; m. Nov. 4, 1835, the Hon. Lewis B. Woodruff, b. June 19, 1809; d. Sept. 10, 1875. He was Judge Court of Common Pleas, N. Y., 1850-55; Judge Superior Court, N. Y. City, 1856-61; Judge Court of Appeals, N. Y. State, 1868-9; and U. S. Circuit Judge for the Second Judicial Circuit, comprising New York, Conn. and Vt., 1870-75. Issue:
 - i. Charles Hornblower, b. Oct. 1, 1836; grad. Yale Coll., 1858; a lawyer of New York; m. June 30, 1863, Katharine G. L., eldest dau. of Wm. E. Sanford, of New Haven, Conn. Issue: I. infant son, b. March 7, 1866; d. same day; II. Lewis Bartholomew, b. Jan. 1, 1868; III. Frederick Sanford, b. Oct. 21, 1869; IV. Charles Hornblower, b. April 13, 1872; V. Edward Seymour, b. Dec. 23, 1876.
 - ii. Morris, b. July 30, 1838; a merchant of New York; m. Oct. 3, 1863, Juliette A., dau. of George W. Lane, a New York merchant (now President of N. Y. Chamber of Commerce, and member of Aqueduct Commission). Issue: I. Harriette Burnet, b. July 23, 1864; II. Nellie Lane, b. Nov. 5, 1867;

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- III. Morris, b. May 23, 1870; IV. George William Lane, b. May 12, 1874.
- iii. Mary Burnet, b. June 27, 1842; m. Feb. 21, 1871, Courtlandt G. Babcock, of New York, now of Stonington, Conn. (Brev. Lieut. Col. U. S. Vols., in War of Rebellion). Issue: I. Lewis Woodruff, b. Dec., 1871; d. July, 1872; II. Harriette Burnet; III. Harry Woodruff; IV. Courtlandt Woodruff, b. Aug. 30, 1882.
5. Charles Williamson, b. Oct. 14, 1812; m. Arabella Smith, of Salem, N. J. Children:
- i. Thomas Jones.
 - ii. Joseph Coerten.
 - iii. Mary Burnet, m. Samuel Allen.
 - iv. Samuel Clement.
 - v. Augustus Smith.
 - vi. Martha Smith.
6. Caroline Burnet, b. Aug. 14, 1814; unm.
7. Mary, b. July 28, 1816; m. Oct. 23, 1844, the Hon. Joseph P. Bradley, of Newark, now of Washington, D. C., Justice of the Supreme Court of the United States. Children:
- i. Mary, m. Henry V. Butler, paper manufacturer, of Paterson, N. J. Issue: I. Mary, b. March 9, 1874; II. Julia; III. Henry V.
 - ii. Caroline, unm.
 - iii. Joseph H., d. 1854, æt. 5 years.
 - iv. Harriette, d. 1856, æt. 5 years.
 - v. William Hornblower, a lawyer of Newark, N. J.; m. Eliza M., eldest dau. of the Hon. Donald Cameron, U. S. Senator from Pennsylvania. Issue: I. Joseph Gardiner.
 - vi. Charles, m. April 12, 1882, Julie E., dau. of Robert F. Ballantine, of Newark, N. J. Issue: I. Charles Burnet, b. April 15, 1883.
 - vii. Joseph Richard, d. young.
8. William Henry, b. March 21, 1820; d. July 16, 1883; graduated from Princeton College, 1838, and from Princeton Theological Seminary, 1843; ordained to the ministry and installed pastor of First Pres. Church, Paterson, Jan. 30, 1844; resigned in Oct., 1871, to accept Professorship of Sacred Rhetoric, Pastoral Theology and Church Government in the Western Theological Seminary, Allegheny City, Pa., which he filled until his death. He m. June 17, 1846, Matilda Butler, of Paterson, dau. of Asa Butler, paper manufacturer, of Suffield, Conn. Children:

- i. Joseph Coerten, b. March 3, 1848; graduated from Sheffield Scientific School, Yale College, 1869; an architect in Washington, D. C.; unm.
- ii. William Butler, b. May 13, 1851; graduated from Princeton College, 1871; a lawyer in New York city; m. April 26, 1882, Susan, youngest dau. of Wm. E. Sanford, of New York, formerly of New Haven, Conn. Issue: I. Lewis Woodruff, b. April 15, 1883.
- iii. Helen, b. Feb. 26, 1857; unm.

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